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IDENTIFIERS *Comparable Worth

ABSTRACT

This report discusses ways to determine why female Federal employees earn less than male Federal employees. Two general approaches are discussed: economic analysis and job content. Economic analysis attempts to measure and explain existing wage differentials between men and women using characteristics of individuals, occupations, and the workplace. Such an analysis could indicate the extent to which factors such as education, work experience, and occupation account for wage differences by sex in the Federal Government. The job content approach focuses on the characteristics of jobs in seeking to identify wage disparities. A job content study could provide a measure of the value of various Federal jobs to the government and a corresponding comparison of the present grades or salaries for those jobs. The General Accounting Office (GAO) believes that each approach has merit. Accordingly, in GAO's view, the most comprehensive and effective means through which to conduct a pay equity study at the Federal level would be to include both approaches. (Appendixes to the report include summaries of pay equity studies conducted in various states, legal issues, pay issues in the Federal service systems, and a list of organizations/individuals contacted and participants on panels for the formulation of this report.) (Author/KC)

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ED255701

REPORT BY THE

Comptroller General

OF THE UNITED STATES

Options For Conducting A Pay Equity Study Of Federal Pay And Classification Systems

This report discusses ways to determine why female federal employees earn less than male federal employees. Two general approaches are discussed--economic analysis and job content. Economic analysis attempts to measure and explain existing wage differentials between men and women using characteristics of individuals, occupations, and the workplace. Such an analysis could indicate the extent to which factors such as education, work experience, and occupation account for wage differences by sex in the federal government. The job content approach focuses on the characteristics of jobs in seeking to identify wage disparities. A job content study could provide a measure of the value of various federal jobs to the government and a corresponding comparison of the present grades or salaries for those jobs.

GAO believes that each approach has merit. Accordingly, in GAO's view, the most comprehensive and effective means through which to conduct a pay equity study at the federal level would be to include both approaches.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

B-217675

To Selected Chairpersons and
Members of Congress:

As you requested, this report discusses various options for conducting a pay equity study of federal pay and job classification systems. Our work to date has confirmed the complexity of the pay equity issue and the need for continued, careful planning if a federal study is to be done. Accordingly, this report points out that a steering committee may be needed to continue the planning and provide further directions for such a study.

This report is also being sent today to the other Chairpersons and Members of Congress (listed on the next page) who requested this study.

Milton J. Socolar

Comptroller General
of the United States

The Honorable Mary Rose Oakar
Chair
Subcommittee on Compensation and Employee Benefits
Committee on Post Office and Civil Service
House of Representatives

The Honorable William D. Ford
Chairman
Committee on Post Office and Civil Service
House of Representatives

The Honorable Ted Stevens
Chairman
Subcommittee on Civil Service, Post Office, and General Services
Committee on Governmental Affairs
United States Senate

The Honorable Jeff Bingaman
Ranking Minority Member
Subcommittee on Civil Service, Post Office, and General Services
Committee on Governmental Affairs
United States Senate

The Honorable Dave Durenberger
United States Senate

The Honorable Alan Cranston
United States Senate

The Honorable Daniel Evans
United States Senate

The Honorable Thomas F. Eagleton
Ranking Minority Member
Committee on Governmental Affairs
United States Senate

The Honorable Barney Frank
Chairman
Manpower and Housing Subcommittee
Committee on Government Operations
House of Representatives

The Honorable Patricia Schroeder
Chairwoman
Subcommittee on Civil Service
Committee on Post Office and Civil Service
House of Representatives

COMPTROLLER GENERAL'S REPORT

OPTIONS FOR CONDUCTING A PAY EQUITY STUDY OF FEDERAL PAY AND CLASSIFICATION SYSTEMS

D I G E S T

Eleven Chairpersons and Members of Congress asked GAO to provide an analysis of the advantages and disadvantages of various methodologies that could be used to study the pay equity issue at the federal level. They also requested information on who could best carry out such a study, the time and cost that might be involved, and other related issues. In carrying out its analysis, GAO obtained the views of various consultants with expertise in economics, job evaluation, and other disciplines. (See app. I.)

Through the Equal Pay Act of 1963 and the Civil Rights Act of 1964, the Congress sought to deal with the problem of sex-based wage discrimination. Still, for a variety of reasons, women continue to earn substantially less than men. Using Census Bureau data, the following chart shows the average 1980 earnings for year-round, full-time female workers by employment sector and race as a percentage of the earnings of all men.

Employment sector	White women	Black women	Hispanic women	All women
Federal government	63.1	62.2	[a]	62.8
State and local government	72.7	64.8	62.9	71.5
Private sector	56.8	50.2	47.9	56.0
All sectors	59.2	54.7	51.2	58.7

[a]Data not available.

The table makes it clear that there is a wage gap between men and women. What is not clear is why this wage gap exists and whether discrimination plays a part. For example, some argue that part of this gap is explained by market forces, noting that many women choose to enter certain lower-paying jobs that allow

them to handle both traditional family duties and work outside the home. Others suggest, however, that at least part of the wage gap is attributable to employers' failure to pay women "comparable worth" for their work.

How is the term "comparable worth" related to existing law?

The Equal Pay Act of 1963 made it generally unlawful for employers to pay higher wages to employees of either sex who performed equal work in the same establishment. However, some individuals and groups assert that, because men and women usually work in different occupations, the Equal Pay Act is unable to end wage discrimination against women. The concept of comparable worth thus goes beyond equal pay for equal work and suggests that there should be equal pay for work of equal "value" to an employer, even though the jobs are not the same. The value of a job, in this context, is commonly measured in terms of skill, effort, responsibility, and working conditions.

The term "pay equity" is sometimes used interchangeably with the term comparable worth. Nonetheless, pay equity encompasses a broader concept than does comparable worth in that it refers to any efforts designed to assure that fair and objective means are used to set wages. (See pp. 1 and 2.)

How has the comparable worth/pay equity issue developed over time?

The term comparable worth was first used in 1974 in a pay study carried out by a consulting firm for the state of Washington. The study indicated that jobs occupied predominately by female state employees were paid an average of 20 percent less than male-dominated jobs that were gauged to be of comparable value under the analytical approach employed. This study is generally considered to be the first pay equity study. Since that time, however, 34 other states have initiated pay equity studies and some have changed their existing compensation systems consistent with the principles of pay equity. Also, some private sector employers have initiated pay equity studies and some have made adjustments

to their compensation systems on the basis of study results. Meanwhile, labor unions and some pay equity advocates have filed lawsuits against numerous public and private sector employers alleging the existence of unjustified pay differentials within specific establishments. (See pp. 2 to 4.)

Why is pay equity an issue of concern to the federal government?

Two pay and job classification systems--the General Schedule (GS) and the Federal Wage System (FWS)--cover 83 percent of federal civilian employees. And, as shown in the following chart, female employees in both systems are concentrated in the lower pay grades, as reflected in their lower wages.

	GS	FWS	TOTAL
Male employees:	819,221	392,165	1,211,386
Percent of total employees	53.8%	90.8%	62.0%
Average salary	$30,229	$22,479	$27,720
Female employees:	703,108	39,627	742,735
Percent of total employees	46.2%	9.2%	38.0%
Average salary	$18,864	$17,848	$18,810
Total employees	1,522,329	431,792	1,954,127

Furthermore, women are concentrated in a few occupational series in the GS and FWS systems. For example, 55 percent of all women employed in GS and FWS jobs are concentrated in 8 percent of the occupations contained in those series.

Thus, the federal government, for whatever reason, employs most women in particular occupational series and in positions ranked at the lower grade and pay levels. This has prompted various groups and individuals to call for a pay equity study of the federal government. (See pp. 6 to 9.)

What approaches can be used to study the pay equity issue at the federal level?

There are several ways in which a pay equity study at the federal level could be carried out. For example, economic analysis could be used to study the relationship between selected employee characteristics and pay differentials. Alternatively, a job content study could be conducted to place a value on each of the important attributes of various jobs and examine whether the total values are consistent with the pay of those jobs.

Economic analysis takes a variety of forms, yet each form generally attempts to measure and explain, to the extent feasible, existing wage differentials between men and women. When completed, an economic analysis of pay differentials could provide the Congress with information on the extent to which factors such as education level, experience, and occupation account for wage differentials by sex in the federal government. Such information could be used to identify any unexplained causes of wage differentials. Further analysis would be needed, however, to determine whether and, if so, what actions would need to be taken to achieve pay equity. (See ch. 2.)

Like economic analysis, the job content approach relies on a variety of specific methodologies. But each methodology is consistent in seeking to measure the value of jobs--rather than individual employees--to an employer. Although the job content approach has been subject to much criticism, it nonetheless has been used extensively as a means for determining whether and to what extent similar pay is accorded to equally-valued jobs in a particular organization. When completed, a job content study could provide the Congress with a measure of the value of various federal jobs to the government and a corresponding comparison of the present grades or salaries for those jobs. (See ch. 3.)

Which of the above-described approaches seems best-suited for a federal study?

In GAO's view, both the economic analysis and job content approaches have value for addressing the issues of pay equity and wage disparities by sex. However, neither approach is sufficient by itself to explain the wage gap. The job content approach alone may fail to consider important human capital or institutional variables (e.g., seniority, training, or union contracts). Similarly, the characteristics of the jobs (e.g., the skill, effort, and responsibility required) may be ignored if only the characteristics of employees or the workplace are considered. Therefore, both approaches should be included in a federal pay equity study. That is, studies of each type should be conducted, either sequentially or simultaneously. Such an approach would provide the Congress with a comprehensive analysis of the pay equity issue. (See pp. 47 to 52.)

Who should carry out the study?

GAO's work to date has confirmed the complexity of the pay equity issue and the need for continued, careful planning if a federal study is to be done. Important policy decisions must be made as part of the next step in the process, including goal setting and study design.

Because this issue is so complex, it seems clear that several organizations or groups may need to be involved in a study. Accordingly, consideration should be given to establishing a steering committee--composed of representatives from affected groups and experts from various fields--to direct the future course of this effort. A steering committee could report directly to Congress and could be granted the authority to make policy decisions, to hire and direct the efforts of needed consultants, to coordinate with appropriate federal agencies and, perhaps most importantly, to interpret study results and to make recommendations. (See pp. 52 to 54.)

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ABBREVIATIONS

AFSCME	American Federation of State, County, and and Municipal Employees
CPDF	Central Personnel Data File
FES	Factor Evaluation System
FWS	Federal Wage System
GAO	General Accounting Office
GS	General Schedule
OPM	Office of Personnel Management

CHAPTER 1

INTRODUCTION

For decades, individuals speaking for women's rights have sought public debate over issues affecting women in the work place. These issues have included, among other things, wage discrimination and limited access to professional and technical professions. Public debates on these issues have led to a number of legislative changes. In the area of wage discrimination, the Equal Pay Act of 1963 (29 U.S.C. § 206(d)) made it generally unlawful for employers to pay higher wages to employees of either sex who perform substantially equal work in the same establishment. Also, in Title VII of the Civil Rights Act of 1964 (42 U.S.C. §2000a-h), the Congress prohibited not only wage discrimination but also various other forms of employment discrimination.

Together, these two laws have been the basis for numerous attempts to address wage discrimination against women. Yet some believe that the application of these laws to date has not resolved what they see as a continuing discrimination problem. Census Bureau and Bureau of Labor Statistics data often are used to support their contention, indicating a sizeable and persistent wage gap between men and women in the United States. Women working full-time on a year-round basis earn approximately 60 percent as much as their male counterparts, and this earnings gap has changed very little over the past 40 years. As the table below illustrates, the wage gap between men and women varies by race and by sector of employment.

AVERAGE EARNINGS OF YEAR-ROUND FULL-TIME FEMALE WORKERS IN THE U.S. BY EMPLOYMENT SECTOR AND RACE AS A PERCENTAGE OF THE EARNINGS OF ALL MEN

Employment sector	White women	Black women	Hispanic women	All women
Federal government	63.1	62.2	[a]	62.8
State and local government	72.7	64.8	62.9	71.5
Private sector	56.8	50.2	47.9	56.0
All sectors	59.2	54.7	51.2	58.7

[a]Information not available

Source: Current Population Reports, Series P-60, No. 132, Table 58, U.S. Census Bureau, 1980.

Few would argue that there is not a wage gap between men and women. Instead the debate centers on the question of why this gap exists and whether discrimination plays a part. Some suggest that the gap is due to market forces, or to women choosing to enter certain low-paying jobs that allow them to handle both traditional family duties and work outside the home. Others suggest, on the other hand, that at least part of the wage gap is attributable to women not receiving "comparable worth" for their work. They assert that, because men and women usually work in different occupations, the Equal Pay Act is unable to end wage discrimination against women. The concept of comparable worth or "pay equity" thus goes beyond equal pay for equal work and suggests that there should be equal pay for work of equal "value" to an employer, even though the jobs are not the same.[1] The value of a job is usually measured in terms of skill, effort, responsibility, and working conditions.

The term comparable worth was first commonly used in 1974 in a pay study carried out by a consulting firm for the state of Washington. The study indicated that jobs occupied predominately by female state employees were paid an average of 20 percent less than comparably valued, male-dominated jobs. This study is generally considered to be the first "comparable worth" study. Since that time, however, 34 other states and a number of localities have taken actions related to the issue of pay equity, as illustrated on the next page. (The categories used in the chart are explained more fully in app. II.)

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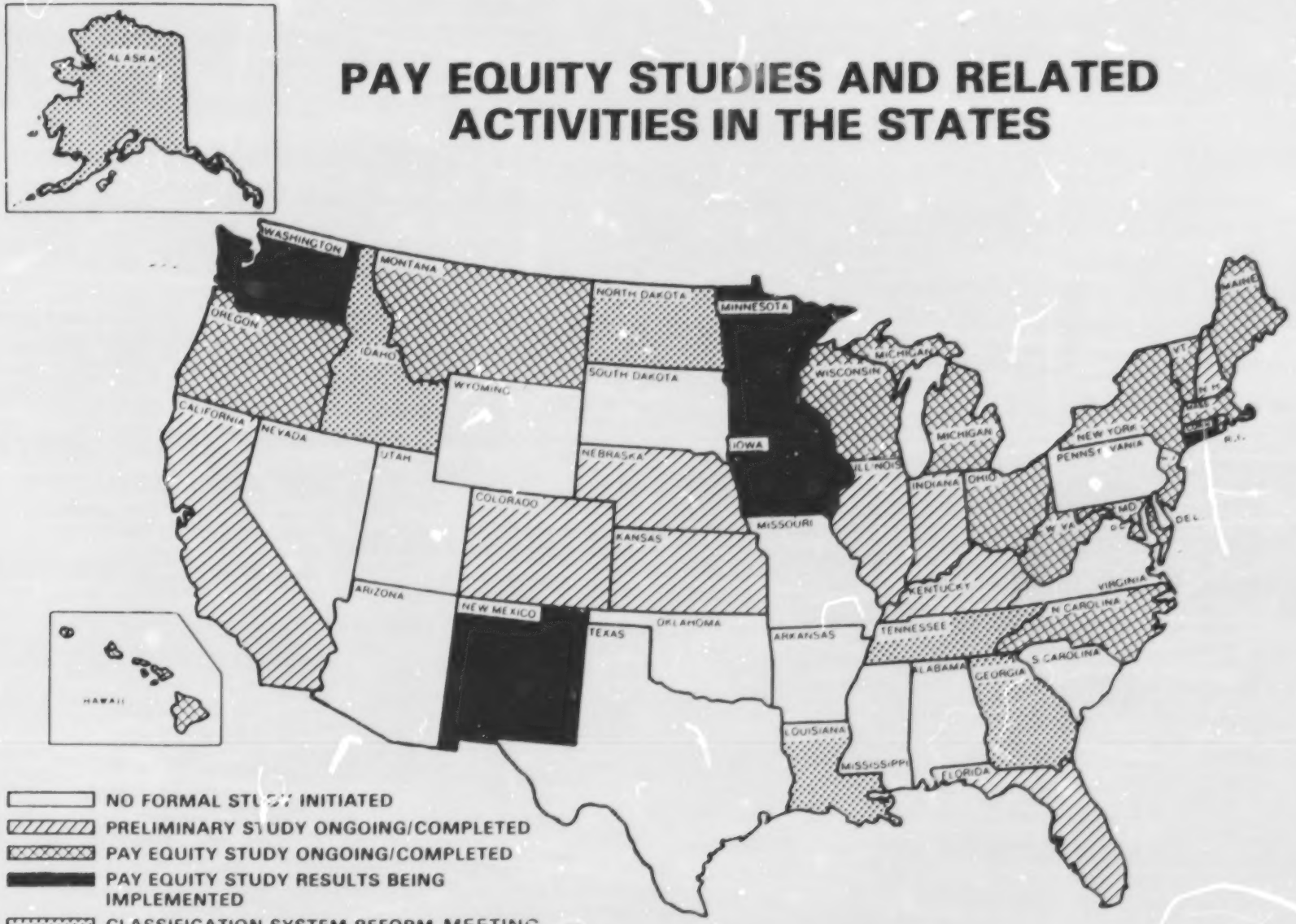
[1]There is no agreed upon definition for the terms "comparable worth" or "pay equity," which are sometimes used interchangeably. Comparable worth is often used to specifically refer to the theory that jobs dominated by women should be paid the same as jobs dominated by men if the work is equally valued by the employer. Pay equity may be viewed as a broader term which encompasses comparable worth, but also includes any efforts to assure that wages are set objectively and fairly.

PAY EQUITY STUDIES AND RELATED ACTIVITIES IN THE STATES



Some private sector employers have initiated their own pay equity studies and some have made adjustments to their compensation systems on the basis of study results. Meanwhile, labor unions and pay equity advocates have filed lawsuits against many public and private sector employers alleging the existence of pay differentials within specific establishments.

Although a pay equity study has been proposed in various bills, and several hearings on the issue have been held, the federal government has not initiated a comprehensive pay equity study of the federal personnel system. During the 98th Congress, the House of Representatives passed legislation that would have mandated a study of federal pay and classification systems to determine if they discriminate in wages on the basis of sex. In the Senate, similar legislation was introduced but not passed. Instead, House and Senate conferees agreed to request that we prepare a report presenting various options for conducting a pay equity study at the federal level. This report responds to that request. Meanwhile, several bills have been introduced in the 99th Congress that address the pay equity issue:

--H.R. 27 calls for a pay equity study of selected federal government position classification and grading systems;

--H.R. 375 would require periodic reports to the President and the Congress on actions taken to enforce federal laws on compensation discrimination; and

--S. 5 calls for the executive branch to enforce equal opportunity laws so as to promote pay equity.

The remainder of this chapter provides further background information related to the pay equity issue, including a brief legal analysis; information on federal classification and pay systems; information on the sex composition of the federal work force; and a discussion of the report's objectives, scope, and methodology. Chapters 2 and 3 discuss two different approaches to pay equity studies--economic and job content analysis--and relate those approaches to the federal government. Chapter 4 discusses federal government study options--including the possibility of combining the job content and economic approaches--and issues concerning who might carry out a study, at what cost, and in what time frame.

LEGAL BACKGROUND

Two previously mentioned laws--the Equal Pay Act of 1963 and the Civil Rights Act of 1964--and several court cases are relevant to the pay equity issue. The following is a brief summary of those acts and recent judicial developments. Further discussion of these and other developments are included in appendix III.

The Equal Pay Act of 1963 prohibits unequal pay for equal work performed by women and men in the same job unless the pay differential is based on: (1) a seniority system, (2) a merit system, (3) a system which measures earnings by quantity or quality of production, or (4) any factor other than sex. Title VII of the Civil Rights Act of 1964 generally prohibits employment discrimination on the basis of sex. However, the so-called "Bennett Amendment" to Title VII provides that an employer may compensate employees differently on the basis of sex if such differentiation is "authorized" by the Equal Pay Act.

Before 1981, federal courts interpreting Title VII expressed different opinions on the meaning of the term "authorized" in the Bennett Amendment. Some courts interpreted the term to mean that a claim of sex-based wage discrimination could not be brought under Title VII unless the female and male jobs being compared were the same or substantively similar, as required under the Equal Pay Act. Other courts adopted a broader interpretation, holding that the Bennett Amendment merely incorporates into Title VII the Equal Pay Act's four defenses, as outlined above. Under this latter interpretation, Title VII's prohibition against wage discrimination would extend to jobs which are not substantially equal under the Equal Pay Act.

The Supreme Court resolved the issue of the Bennett Amendment in 1981 when it decided County of Washington v. Gunther, 452 U.S. 161 (1981). In Gunther, female prison guards alleged that the county paid them only 70 percent of what male guards earned, even though the county had evaluated their jobs as being worth 95 percent of the male guards' jobs. Although the female and male guards performed some different duties, the Court held that the women could maintain a claim under Title VII for intentional sex discrimination. In so holding, the Court ruled that the Bennett Amendment incorporates into Title VII only the Equal Pay Act's four defenses, and not its "equal work" standard. The Court emphasized that its decision addressed direct evidence of intentional discrimination, not the "controversial concept" of comparable worth.

Federal courts deciding wage inequality cases in the wake of Gunther still expressed different opinions concerning the reach of Title VII. However, most courts restricted their findings of Title VII liability to cases involving evidence of intentional discrimination. Several courts specifically rejected "pure" comparable worth claims grounded on an empirical comparison of dissimilar female and male-dominated jobs, holding that Title VII does not require a court to assess the worth of functionally unrelated jobs.

The U.S. District Court's decision in American Federation of State, County, and Municipal Employees (AFSCME) v. State of Washington, 578 F. Supp. 846 (W.D. Wash. 1983), was the first

case to impose Title VII liability for an employer's failure to implement a "comparable worth" compensation system. As mentioned above, the pay equity study conducted in 1974 in the state of Washington indicated that, on the average, female-dominated jobs were paid 20 percent less than male-dominated jobs of generally equivalent value. Despite these findings, the state legislature did not authorize any remedial pay plan until shortly before the court decision in 1983.

Likening the AFSCME case to Gunther, the district court held that the state's delay in rectifying acknowledged pay disparities constituted intentional sex discrimination. The court also found the state liable under the "disparate impact" theory, which prohibits facially-neutral practices having an adverse impact on a protected group. Specifically, the court determined that the state's compensation system had a disparate impact on women, and that the state had failed to demonstrate a legitimate and overriding business justification for the discrimination. Washington State has appealed the AFSCME decision to the U.S. Court of Appeals for the Ninth Circuit.

FEDERAL PAY AND CLASSIFICATION SYSTEMS

The federal government uses over 60 different systems to set pay for its employees, but these systems can be described under two general methods--rank-in-position and rank-in-person. This section briefly discusses those methods and two of the major pay systems in each method. A more complete discussion of these methods and systems may be found in another GAO report.[2] Also, appendix IV describes how pay is currently set in the GS and FWS systems.

Rank-in-position

Rank-in-position methods are used for all but a very small percentage of federal employees, and are based on the premise that the duties and responsibilities of a position should determine the pay of job incumbents. Similar positions are first grouped together into job categories or series through a process known as position classification. Then, the worth of those jobs is measured through one of several job evaluation processes. Job evaluation measures the relative degree of skill, effort, and responsibility required by the position and the working conditions under which the job is performed.

Two rank-in-position systems--the General Schedule (GS) and the Federal Wage System (FWS)--cover 83 percent of federal

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[2]Description of Selected Systems for Classifying Federal Civilian Positions and Personnel, (GAO/GGD-84-90, July 13, 1984).

civilian employees. Both systems cut across virtually all federal agencies and are overseen by the Office of Personnel Management (OPM). The GS system covers most white-collar positions, encompassing 1.5 million employees in 441 occupational series and 18 pay grades. GS positions are evaluated using either nonquantitative narrative or quantitative factor evaluation methods. In both methods, OPM develops occupational standards that are intended to ensure consistent treatment of occupations across agencies.

The FWS system covers approximately 431,000 blue-collar positions in 444 occupational series. There are three major FWS schedules--wage grade, work leader, and wage supervisor. Wage grade employees perform nonsupervisory work, and are evaluated using standards for specific occupations. Work leader and wage supervisor schedules cover supervisory positions, and are evaluated using supervisory or leader standards. Like the GS system, OPM develops job grading standards to attempt to ensure consistent treatment of similar positions across agencies.

Rank-in-person

In contrast to the rank-in-position method of pay setting, rank-in-person methods determine the value or worth of an employee to the organization, not the job as in rank-in-position systems. An employee's rank, and therefore pay, is determined by evaluating the individual's ability, qualifications, and accomplishments without necessarily considering the duties and responsibilities of the position the person occupies. Thus, employees in rank-in-person systems may perform the same work but be paid differently.

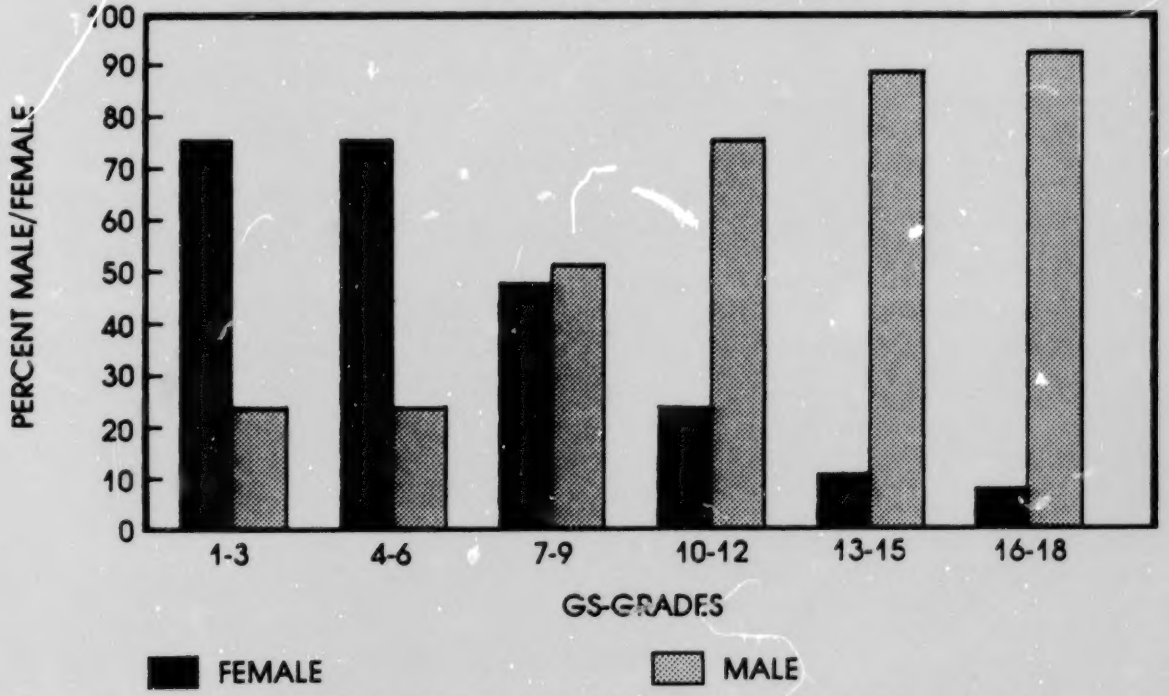
Two of the largest civilian rank-in-person systems in the federal government are the systems for Foreign Service professionals (primarily at the State Department) and medical professionals at the Veteran's Administration's Department of Medicine and Surgery. The Foreign Service system covers about 14,000 white-collar employees involved in planning, conducting, and implementing U.S. foreign policy. The Department of Medicine and Surgery employs about 39,000 medical professionals, including physicians, dentists, nurses, and physician assistants. In both systems, evaluation boards consider the employees' knowledge and experience in setting their pay.

SEX COMPOSITION OF THE FEDERAL WORK FORCE

In addition to understanding the general characteristics of the principal federal pay systems, it is also important to know where men and women are located within those systems. Because the GS and FWS systems constitute such a large percentage of the federal work force, they will be the focus of discussion in this section. OPM data indicates that female

employees in both the systems are concentrated in the lower pay grades, as illustrated by the following chart for the GS system.

PERCENT FULL-TIME MALE AND FEMALE EMPLOYEES
IN THE GS SYSTEM BY GRADE AND SEX



Source: OPM Federal Workforce Statistics as of 4/84. Grade 16-18 data includes Senior Executive Service personnel.

Because women are concentrated in the lowest grade levels of both the GS and FWS systems, their average salaries are also lower than men's. The following table shows the numbers and percent of employees in each system and their average salaries by sex.

NUMBER, PERCENT, AND AVERAGE SALARIES OF FULL-TIME MALE AND FEMALE EMPLOYEES IN THE GS AND FWS

	GS	FWS	TOTAL
Male employees:	819,221	392,165	1,211,386
Percent of total employees	53.8%	90.8%	62.0%
Average salary	$30,229	$22,479	$27,720
Female employees:	703,108	39,627	742,735
Percent of total employees	46.2%	9.2%	38.0%
Average salary	$18,864	$17,848	$18,810
Total employees	1,522,329	431,792	1,954,121

Source: OPM Federal Civilian Workforce Statistics as of 10/31/83.

Furthermore, women are concentrated in fewer occupational series in the GS and FWS systems than their male counterparts. Fifty-five percent of the women are employed in just 77 of the 885 occupational series in the two systems, whereas 77 percent of the men are employed in 658 of the 885 series. The chart below shows the number of occupational series that are 70 and 90 percent or more sex-segregated.

NUMBER OF GS AND FWS OCCUPATIONAL SERIES WHICH ARE 70 AND 90 PERCENT MALE AND FEMALE

	GS	FWS	TOTAL
Total occupational series	441	444	885
Number of occupational series:			
70 percent or more male	245	413	658
70 percent or more female	67	10	77
90 percent or more male	108	347	455
90 percent or more female	20	6	26

Source: OPM Federal Civilian Workforce Statistics as of 10/31/83.

In sum, the federal government, for whatever reason, employs most women in particular occupational series, in positions ranked at the lower grade levels, and, therefore, at lower pay levels. Women are also largely absent from the blue-collar FWS system. This data has prompted various groups and individuals to call for a pay equity study of the federal government.

OBJECTIVES, SCOPE, AND METHODOLOGY

In a letter dated November 15, 1984, eight Chairpersons and Members of Congress requested that we present options for selecting a scope and methodology for a pay equity study of federal executive agencies' pay and classification practices. Three additional Members added their names to the request in letters dated November 20 and November 29, 1984. (See request letters in appendix I.)

Specifically, we were asked to prepare a report to include:

--An analysis of the advantages and disadvantages of methodologies that could be used in a study to determine whether and, if so, the extent to which sex-based wage discrimination exists in federal pay and classification systems.

--An estimate of the time that would be involved in conducting such a study.

--An estimate of the cost of conducting such a study.

--A discussion of the pros and cons of having GAO, OPM, a private contractor, or another party conduct the study.

--A description of the relationship of an ongoing OPM review of the federal classification process to the pay equity issue.

Because neither the Equal Employment Opportunity Commission nor the courts have defined what constitutes sex-based wage discrimination, our report does not describe study methodologies which specifically address the issue of sex-based wage discrimination. Instead, the methodologies that we describe are designed to identify unexplained differences between male and female earnings levels, which may or may not be attributable to discrimination.

As we point out in this report, before a federal pay equity study is initiated, numerous policy decisions need to be made. For this reason, it was not feasible to discuss the specific time and costs that might be involved in conducting a study. We also did not discuss the pros and cons of various public or private sector groups doing the study but rather, as discussed in chapter 4, point out that a broadly representative steering committee may be the appropriate mechanism to direct the study. Also, this report does not discuss the relationship of the ongoing OPM review of the federal classification process to the pay equity issue, as was requested. OPM officials declined to discuss any details of their study until their report is final.

In making our analysis, we conducted an extensive literature search and contacted experts in the fields of job evaluation and labor economics. We also contacted federal employee organizations, professional associations, and organizations representing state and local governments. The federal agencies contacted included OPM, the Equal Employment Opportunity Commission, the Department of Labor, the Civil Rights Commission, and the Civil Rights Division of the Department of Justice.

To obtain greater insight into the issue, we hosted two consultant panels. On December 17, 1984, we conducted a forum on pay equity activities in the states, and on February 9, 1985, we hosted a panel to discuss the specific issues related to conducting a federal pay equity study. A complete list of the organizations and experts we contacted during this review is included as appendix V.

We also analyzed October 1983 and April 1984 federal employee data provided to us by OPM. In addition, we relied heavily on information we developed while preparing the following reports:

--Description of Selected Systems for Classifying Federal Civilian Positions and Personnel (GAO/GGD-84-90, July 13, 1984); and

--Distribution of Male and Female Employees in Four Federal Classification Systems (GAO/GGD-85-20, Nov. 27, 1984).

Although this report focuses on methodological options designed to identify wage differentials by sex in federal pay and classification systems, similar methodologies might also be used to study other types of wage disparities (e.g., wage gaps based on race). This review was performed from November 1984 to February 1985.

CHAPTER 2

USING ECONOMIC ANALYSIS TO STUDY SEX-BASED WAGE DIFFERENTIALS

One means through which to analyze wage differentials by sex involves the application of various economic theories and models to specific questions concerning employment patterns and wage determinants. Typically, economists have carried out such analyses by attempting to identify those factors that predict wages and then seeking to determine the extent to which the factors explain wage differentials between men and women. This chapter briefly describes several economic theories as they relate to employment and wages and illustrates various practical applications of these theories. The various approaches focus on

--individual characteristics of workers, such as education and work experience;

--occupational characteristics, such as the concentration of women in particular fields; and

--institutional characteristics, such as regional variations and intra-firm policies.

Also included is a description of related empirical research involving the federal government. And, finally, because some form of economic analysis may be a desirable component in a pay equity study at the federal level, this chapter presents a general outline of steps that could be followed in such a study.

BACKGROUND INFORMATION

Mainstream economic theory emphasizes the characteristics of a market-based economy in which the forces of supply and demand strongly influence the prices paid for various commodities. Labor, in this context, is seen as a commodity similar in some respects to other market commodities, though more complex than others. Wages are treated as the price paid for this commodity. Wages are thus set primarily by the interaction of supply and demand, with supply corresponding, for example, to the relative availability and characteristics of workers, and demand, for example, to the needs and behaviors of individual and industry-wide employers.

The interaction of supply and demand forms the basis for examining the factors that account for wages and wage differentials between men and women. Within that context economists and social scientists have traditionally focused on the individual characteristics of workers or categories of workers in seeking to analyze wages.

Some researchers, however, have suggested that there are forces beyond the traditional interaction of supply and demand that influence the determination of wages and the incidence of wage differentials. This perspective does not reject the role of supply and demand in wage determinations; rather, it seeks to determine whether there are other important factors that affect the wage-setting process. One such approach focuses on occupational characteristics and the degree and nature of occupational segregation.

Still another approach derives from the institutional theory of labor economics. Here, the characteristics of particular labor markets or sectors and related institutional factors, such as variations in union membership and regional conditions, are thought to play an additional, significant role in wage determinations and wage differentials.

INDIVIDUAL CHARACTERISTICS

The individual characteristics approach is most often viewed in terms of the human capital model of earnings levels.[1] This model is based on a presumed relationship between various human capital characteristics (such as education and length and nature of work history) and productivity. Productivity is seen as one important explanation for variations in wages among different categories of workers, such as male and female workers. In theory, a greater investment in human capital should lead to greater productivity and, in turn, to higher wages.

Generally, researchers examining the impact of human capital characteristics on wages first determine the average wages for male and female workers in the targeted population. If their analysis focuses on a single employer, they compute the average wages for men and women within the subject firm. If their analysis examines the wages of male and female workers in general, they may rely on data collected by, for example, the Census Bureau or the Bureau of Labor Statistics. Researchers then identify any wage differential between male and female workers and use human capital characteristics to explain that differential.

The statistical technique of multiple regression analysis is generally used to examine the relationship between these human capital characteristics and the wage differential. This technique enables researchers to determine how much of the difference in wages can be explained by the fact that men and women have different human capital characteristics.

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[1]Human capital is defined as an individual's stock of productive skills. See Gary S. Becker, Human Capital, 2nd ed. (New York: Columbia University Press, 1975), chapter 2.

Work experience is an example of one characteristic believed to be part of an individual's stock of human capital. Accordingly, a number of human capital studies have attempted to examine the effect of work experience on wages. One such study (Mincer and Polachek, 1978)[2] was based on the hypothesis that women's intermittent participation in the labor force, due to marital commitments, accounts for a significant portion of the difference in male and female wages. Mincer and Polachek examined work force data for married women over a period of time. The study concluded that from 19 to 49 percent of the wage gap between men and women could be attributed to variations in such work history patterns. In addition, a separate team of researchers (Mincer and Ofek, 1983)[3] found that wages for women re-entering the labor market were lower than at the time they left, and that the longer the interruption, the greater the decline in earnings.

In comparison, Sawhill[4] looked at work force statistics for women in different marital groups in an attempt to determine the impact of marital status on wages (wage differentials). Specifically, this study found that earnings for single women rose at a faster rate over time than for married women, indicating the value of labor market experience. Nonetheless, single women at all experience levels were found to have considerably lower earnings than did men with comparable levels of experience. These findings prompted the researcher to conclude that the wage returns received by men and women for equivalent work experience were different.

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[2]Jacob Mincer and Solomon Polachek, "An Exchange Theory of Human Capital and the Earnings of Women: Women's Earnings Reexamined," Journal of Human Resources, Vol. 13, No. 1 (Winter, 1978), pp. 118 - 134.

[3]Jacob Mincer and Haim Ofek, "Interrupted Work Careers: Depreciation and Restoration of Human Capital," Journal of Human Resources, Vol. 17, No. 1 (Winter, 1982), pp. 3 - 24.

[4]Isabel V. Sawhill, "The Economics of Discrimination Against Women: Some New Findings," Journal of Human Resources, Vol. 8 (Summer,1973), pp. 383 - 396, cited in Nancy S. Barrett, "Women in the Job Market: Occupations, Earnings, and Career Opportunities," in The Subtle Revolution, ed. Ralph E. Smith (Washington, D.C.: The Urban Institute, 1979), p. 38.

In 1979, a team of researchers (Corcoran and Duncan)[5] used a more detailed and more comprehensive data set (relative to the Sawhill study) to further investigate the extent to which variations in human capital characteristics accounted for wage differentials. Various indicators were included to measure the impact of work history (e.g., years with current employer prior to current position, years of training completed on current job), labor force attachment (e.g., employee-placed limits on job hours or location, employee plans to stop work for reasons other than training), and education on the wage gap between men and women. The researchers concluded that 44 percent of the wage gap could be attributed to differences in so-called human capital variables. Specifically, 39 percent was attributed to work history, 3 percent to labor force attachment, and 2 percent to formal education.

In sum, the empirical research using the individual characteristics suggested by the human capital approach has generally accounted for up to half of the wage gap between men and women.[6] As might then be expected, attention subsequently has focused on the size and meaning of the remaining differential.

OCCUPATIONAL CHARACTERISTICS

Another approach to the study of wage differentials by sex is based on a suggested relationship between occupational characteristics and wages. In the context of male-female wage differentials, this relationship is believed to be important because men and women tend to be concentrated in different occupations (i.e., occupational segregation).[7]

Several explanations have been offered for the occurrence of sex-based occupational segregation.

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[5]Mary Corcoran and Gregory J. Duncan, "Work History, Labor Force Attachment, and Earnings Differences Between the Races and Sexes," Journal of Human Resources 14 (Winter, 1979), pp. 3 - 20; cited in Donald J. Treiman and Heidi Hartmann, eds., Women, Work, and Wages (Washington, D.C.: National Academy of Sciences Press, 1981), p. 23.

[6]Donald J. Treiman and Heidi I. Hartmann, eds., Women, Work, and Wages (Washington, D.C.: National Academy of Sciences Press, 1981), pp. 20 - 21.

[7]For empirical evidence on occupational segregation, see, for example, Barbara Bergmann and Irma Adelman, "The 1973 Report of the President's Council of Economic Advisors: The Economic Role of Women," American Economic Review, 63 (September 1973), pp. 509-14.

--Some contend that occupational segregation is the result of women's personal choices. For example, women may choose certain occupations because they have preferences for certain types of work, or because certain occupations allow them greater flexibility to meet traditional home and family responsibilities.

--Others contend that occupational segregation is not the result of women's personal choices but, instead, is the result of their lack of access to particular kinds of work. According to this hypothesis, employers have channeled women into certain occupations and denied them the opportunity to enter other occupations.

--A third explanation for occupational segregation combines the previous two explanations. This explanation holds that women have made personal choices to enter certain occupations because they perceive that they will be denied access to others, or, even if given access, will not be granted promotions.

In any case, the occupational characteristics approach to the analysis of sex-based wage differentials recognizes that women are concentrated in a relatively small number of occupations. Further, these occupations tend to receive low wages.[8]

Several explanations have been suggested for why these occupations receive low wages. Some contend that because there is an excessive number of women trained for a limited number of occupations, there is an oversupply of women with particular skills. This, in turn, is believed to result in lower wages. Other theorists contend that the features associated with certain occupations (e.g., short work days, flexible hours) result in lower wages. Still another explanation contends that female-dominated occupations are paid low wages because of the personal prejudice of employers. Accordingly, these occupations receive low wages precisely because the work is performed by women.

Researchers examining the relationship between occupational characteristics and wages generally use a methodology similar to that used in human capital research--multiple regression analysis. Typically, the analysis includes both human capital and occupational characteristics. And, most of the studies indicate that occupational characteristics can at least partially explain the earnings gap, although there is variance in the extent of

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[8]Dixie Sommers, "Occupational Rankings for Men and Women by Earnings," Monthly Labor Review, Volume 97 (August 1974), pp. 34-51.

the differential explained. For example, Bluestone et. al. (1973)[9] used a regression equation with variables for both education and occupational classification (using broad census groups). This study found that education and occupational classification together accounted for approximately 6 percent of the male-female earnings differential.

Additional studies, however, indicate that the more detailed the occupational classifications, the larger the amount of the differential explained. Treiman and Hartmann[10] also used census data to examine major occupational groups. They found, first, that by using 12 occupational groups, approximately 10 percent of the differential could be explained. Using 479 occupational categories, however, they were able to explain from 35 to 40 percent of the differential.

Thus, by adding occupation-related factors to the equation, some researchers have been able to further explain wage differentials. Other researchers have gone a step further by adding institutional factors to the equation.

INSTITUTIONAL CHARACTERISTICS

Institutional theory uses a somewhat different approach in seeking to explain how wages are set. This theory acknowledges the importance of supply and demand forces in setting wages. However, it holds that institutional characteristics lead to a relatively less flexible wage determination process when compared to supply and demand alone. According to institutionalists, supply and demand operates imperfectly, thereby allowing room for employer discretion in wage setting and job allocation.

Several institutional characteristics are believed to affect the wage-setting process. For example, one model of wage setting used by institutional theorists centers on the concept of an internal labor market. This model focuses on the internal job structure of an organization and suggests that wage rates for some occupations are affected more by employer practices within an organization (e.g., classification and compensation

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[9]Barry Bluestone, William M. Murphy and Mary H. Stevenson, Low Wages and the Working Poor, (Ann Arbor, Michigan: University of Michigan, Institute of Labor and Industrial Relations, 1973).

[10]Donald J. Treiman and Heidi Hartmann, eds., Women, Work and Wages, (Washington, D.C.: National Academy of Sciences Press, 1981), p. 33.

systems or promotional practices) than by supply and demand in the marketplace.[11]

According to these theorists, an internal labor market is made up of many jobs that are unique to particular employers. As a result, many jobs within the internal labor market, and their wages, are not subject to external supply and demand pressures. Instead, job allocation and wage determination is a routine process governed by employers' administrative rules. Most jobs are filled by employees advancing up career ladders established by the employer. These researchers believe that relative wages are set by procedures grounded in custom and are rarely changed.

Institutional theory recognizes that individuals typically enter an internal labor market through ports-of-entry (i.e., entry level positions). These jobs are usually found at the bottom of established career ladders. The institutional model contends that supply and demand market forces more strongly affect these positions, when compared to other jobs within the internal labor market.

According to these theorists, the existence of internal labor markets can partially explain the earnings differential between men and women. That is, either by choice or because they are denied access, women are not employed in those occupations which provide substantial promotional and wage growth opportunities. Instead, institutionalists believe that women occupy positions with limited or no promotion potential and, as a result, their wages are lower.

Institutional theory has also given rise to the development of the dual labor market concept. That concept holds that there are two employment sectors--a primary sector and a secondary sector. The primary sector consists of those firms in which the entry-level jobs lead to higher paying positions, longer-term employment, pensions, and other desirable benefits of employment. The secondary sector consists of jobs with few career ladders or none. Institutional characteristics often attributed to the primary sector include high union activity and capital intensive investment. Secondary market characteristics, on the other hand, include low union activity and low capital investment. Dual labor market analysis suggests that the representation of women in secondary sector jobs be examined as a possible source of male-female wage differences.

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[11] Francine D. Blau and Carol L. Jusenius, "Economists' Approaches to Sex Segregation in the Labor Market: An Appraisal," pp. 190-192 in Martha Blaxall and Barbara Reagan, editors, Women and the Workplace: The Implications of Occupational Segregation, (Chicago: University of Chicago Press, 1976).

A study by Blau[12] examined the types of employers for whom men and women worked. Blau found that, within many occupations, a substantial portion of the earnings differential between men and women could be explained by the tendency for women to be concentrated in low-paying firms and men in high-paying firms. This research lends support to the hypothesis that institutional features of firms can explain part of the male-female wage differential. Institutional theorists thus seem to have further expanded the types of variables that might predict and explain wages.

ECONOMIC STUDIES ANALYZING WAGE DIFFERENTIALS IN THE FEDERAL GOVERNMENT

Because most economic studies of sex-based wage differentials have focused on the private sector, only a limited body of empirical research addresses the existence and/or extent of the problem in the federal government. A summary of this research is included below and is followed by a discussion of a potential approach to, and related difficulties associated with, a possible economics-based federal study.

In a series of studies, Borjas[13] examined the wage structure within the federal government. The first study sought to determine (1) which human capital, occupational, or institutional characteristics best predicted federal sector earnings and (2) whether these characteristics were afforded different values by the various agencies.

A one percent sample (which included data on 21 agencies) of OPM's Central Personnel Data File (CPDF) was used to examine the above questions. The analysis included the following characteristics:

--education, experience, and job tenure;

--sex, race, veteran status, health, and military status;

--regional or headquarters offices.

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[12]Francine D. Blau, Equal Pay in the Office, (Lexington, Mass.: Lexington Books, 1977).

[13]George J. Borjas, "Wage Determination in the Federal Bureaucracy: The Role of Constituents and Bureaucrats," Journal of Political Economy, 88 (December, 1980) pp. VIII and "The Measurement of Race and Gender Wage Differentials: Evidence from the Federal Sector," Industrial and Labor Relations Review, Vol. 37, No. 1 (October 1983), pp. 79-91.

Borjas found that education accounted for 6.6 percent of earnings and that job tenure accounted for approximately 56 percent. He also found that among male and female employees similar on the above characteristics, male employees earned an average of 26.7 percent more than female employees. Therefore, the gender of federal employees was found to be a strong predictor of earnings. Lastly, Borjas found that the effect of the various human capital characteristics and gender on earnings varied among the different agencies.

The second study by Borjas (1983) produced results similar to the first study. He found that:

--significant wage differentials existed in the federal government between men and women possessing similar human capital characteristics;

--white men earned approximately 22 to 27 percent more than all women;

--the wage gap differed on an agency-by-agency basis.

This study also found that the intermittent labor force participation of women could explain 25 percent, at most, of the federal sector wage gap.

Borjas thus suggested that future analyses of the federal sector focus on discrimination within individual agencies and/or the differences among agencies. A 1979 study (Taylor)[14] generated results similar to those of the Borjas studies. Taylor included the following characteristics in her analysis: education, supervisory status, federal labor force experience, veteran status, region, and several broad occupational groups including professional, technical, administrative, and clerical personnel. This study found that a wage gap existed between men and women, even after accounting for education, supervisory status, federal labor force experience, veteran status, and region. It also found that job structures in the federal government differed for female- and minority-dominated occupations, as compared to male-dominated occupations.

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[14]Patricia A. Taylor, "Income Inequality in the Federal Civilian Government," American Sociological Review, 44 (June 1979), pp. 468-79.

Other studies have focused on a single federal agency--the Postal Service. For example, one study[15] compared the earnings of female postal workers to the earnings of white male postal workers, after taking into account human capital and labor market differences. The results showed the wages of women and nonwhite postal workers to be similar to the wages of white male postal workers. The authors concluded, therefore, that wage comparability existed in the Postal Service.

Although there have been few economic analyses of male-female wage differentials in the federal government, those which have been done have yielded results somewhat similar to private sector study results. That is, economists generally have found it possible to attribute a portion of the wage gap to factors other than discrimination. Accordingly, it may be appropriate to include economic analysis in any study of sex-based wage discrimination in the federal government.

GENERAL STEPS IN CONDUCTING AN ECONOMIC STUDY AT THE FEDERAL LEVEL

As is suggested by the previous sections of this chapter, an economic study of the federal pay and classification systems could take a variety of forms. For example, the human capital, occupational, and institutional approaches rely on different theories and models to explain wage differentials. They also differ on such critical components as the usefulness of a particular model, the variables to include in that model, the timeframes the model should cover, and the interpretation of results. Despite these differences, the general steps in any economic study at the federal level should include:

--developing and articulating a specific goal;

--deciding which pay and classification systems and employees should be included;

--determining what employee data is necessary and how to gather the data; and

--determining the study design and the statistical techniques to use.

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[15]Martin Asher and Joel Popkin, "The Effect of Gender and Race Differentials on Public-Private Wage Comparisons: A Study of Postal Workers," Industrial and Labor Relations Review, 38 (October 1984), pp. 26 to 35.

Each of these general steps is discussed below, as well as policy decisions that must be made as part of any economics-based study of federal pay differentials. Technical difficulties which might be encountered are also highlighted. The steps discussed clearly are not exhaustive, as other issues may surface during the course of the study. Also, the discussion is necessarily general because of the number of policy decisions which must be made. Finally, the steps are interrelated and may be carried out at the same time or in some other order.

An economic analysis may need to take into account, and perhaps will be guided by, existing pay and classification statutes. Each of these statutes establishes pay and classification principles for certain agencies and employees and excludes certain others. Study designs which cut across statutory lines need to take into account the differences in those systems and statutes.

I. Developing and articulating a specific goal.

The first step that should be taken by Congress or its designee involves specifying a goal for the study, since that goal will significantly affect all subsequent steps. Clearly, a wide range of options is available in setting a goal for the study. For example, one goal could be to determine whether and, if so, to what extent the wage gap could be explained by identifiable factors other than discrimination. The analysis might focus on some aspects of the human capital, occupational and institutional characteristics not presumed to be discriminatory to explain wage differentials. Regardless of which goal or set of goals is chosen, the objectives should be as specific as possible to ensure that they can be used to guide subsequent steps.

II. Deciding which pay and classification systems and employees should be included.

Once the goal of the study is agreed upon, the next step in the process is deciding which pay and classification systems and employees should be included in the study. As noted in chapter 1, there are over 60 pay and classification systems in the federal government, some with different pay premises and different statutory authorities (e.g., rank-in-person versus rank-in position systems). Several general coverage options for the study exist, each with certain advantages and disadvantages. Some of the major options include (1) all pay and classification systems (i.e., both rank-in-person and rank-in-position systems); (2) rank-in-position systems only; (3) the GS and FWS systems only; or (4) the GS system only.

The decision as to the coverage of the study might be guided by the need to include as many employees and agencies as possible without crossing multiple statutory boundaries. A

study of all federal pay systems or all rank-in-person systems would be broad in scope, but implementation of the results would require changes to numerous statutes governing those systems. In contrast, a study concentrating only on GS employees would be confined to a single statute, but would be very narrow, covering only white-collar employees. On the other hand, a study focusing on the GS and FWS rank-in-position systems would cover 83 percent of full-time federal employees (outside the Postal Service) in white- and blue-collar occupations across most agencies. And, only two pay and classification statutes would be involved.

Once the pay and classification systems the study will encompass have been selected, a decision must then be made as to whether the federal agencies covered by the selected system should be viewed as a single employer or whether each agency should be viewed as a separate employer. Current pay and classification statutes usually require consistency in pay administration within the boundaries of their authority. For example, under the Pay and Classification Act of 1949, OPM is required to write classification and qualification standards to ensure consistency in pay administration for all positions and employees in the General Schedule. However, despite these statutory requirements, several studies have indicated that different agencies may be paying the same type of occupations and employees differently because of variations in the way the jobs are classified.[16]

Study designers should, therefore, consider whether the federal government should be considered as a whole or if the study should attempt to note any differences among agencies. This decision can have major practical and theoretical implications for other steps in the study. For example, data gathering could be much more difficult if each agency were viewed as a separate employer. However, if wage disparities occur in certain agencies more so than in others, remedies for those disparities could be more effectively focused if agency-specific information were available.

III. Determining which employee data is necessary and how to gather the data.

The human capital, occupational, and institutional economic approaches require detailed information on job incumbents, occupational distribution patterns, and/or institutional variations. Human capital data needed in a federal study includes

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[16] Classification of Federal White Collar Jobs Should be Better Controlled, (GAO/FPCD-75-173, Dec. 4 1975); U.S. Civil Service Commission, "Report on the Study of Classification Accuracy in GS Grade Levels 12 through 15", December 1974.

information on male and female employees' education, training, work experience, and continuity of work force participation. Occupational and institutional data might include information such as geographic location and union membership.

Some difficulties in gathering and using this information should be anticipated. Although OPM has some data on federal employees, other data exists only at the agency level. Further, some of the data needed for an economic study of federal pay and classification systems might not be available at either level.

If the data needed for an economic study is not available from either OPM or the agencies, a survey of selected employees could be conducted to gather that information. Several survey- and sampling-related issues would then have to be addressed. For example, if each agency is viewed as a separate employer, the sample size would need to be much larger and stratified by agency. Also, the sample would need to be randomly selected and of sufficient size to allow an acceptable level of statistical confidence.

Other information may be available, but may not be accurate, consistent in format, or sufficient enough in detail to allow the analysis to proceed. For example, an occupational characteristics study might require extensive information on the differences between various occupations in the federal government, but the available data may not be detailed enough to allow such an analysis.

An even more basic data issue that might be addressed is whether the variables commonly used in economic studies validly measure the theoretical concepts underlying the approach. For example, human capital theory uses worker characteristics as proxies for productivity to explain wage differentials. The proxies often are measured by such variables as education and length of work experience. Study designers might consider whether these variables adequately capture the productivity of individuals or whether other variables should be used.

IV. Determining the study design and the statistical techniques to use

The methodological design of the study and the possible statistical technique chosen will depend upon the questions the research is attempting to answer and the type of data to be analyzed. Decisions regarding the design and the statistical techniques used will affect the type of results the study produces.

For example, one design issue is whether the study will look at employees over the course of their entire federal careers or at only one point in time. If the analysis focuses on entire careers, longitudinal data and techniques will be

required. This type of analysis will be able to explore the question of whether wage differentials are partially the result of different career paths or promotional patterns. A study focusing on one point in time will not be able to address this possible explanation for male-female wage differentials.

Decisions will also have to be made concerning the specific statistical equations to be used. Statistical equations recognize certain factors that influence wages and relate these factors to wage rates. These factors and relationships may be specified in a variety of ways. A technical panel might be formed to reach agreement on both the appropriate statistical equations and design issues.

CHAPTER 3

THE JOB CONTENT APPROACH TO PAY EQUITY STUDIES

The job content approach is another way in which sex-based wage differentials can be examined. In examining those differentials, though, job content studies focus on the characteristics of jobs, not job incumbents or the workplace as in economic studies. The approach uses a technique called job evaluation to analyze the value of jobs to an employer and to identify pay differences between comparably-valued male- and female-dominated job classes. In this chapter, we will:

--describe job evaluation techniques and how they have been used extensively to set wages,

--describe the job content approach and the advantages and disadvantages of the approach in general,

--note two methodological options available under this approach and the advantages and disadvantage of each,

--provide examples of each method as used in state studies and related follow-up activities, and

--present a general methodology for carrying out a job content study in the federal government.

JOB EVALUATION IS USED EXTENSIVELY IN SETTING PAY RATES

Job evaluation is a formal procedure for hierarchically ordering a set of jobs in terms of their value or worth, usually in order to establish pay rates. When used in setting those rates, it assumes that jobs should be paid based on their worth to the organization; that it is the job and not the individual worker that is evaluated; and that job worth can be accurately measured.

Job evaluation has been used extensively in setting wages in both public and private organizations. A form of job evaluation has been used to set pay in the federal government for over a hundred years. Currently, about three-fourths of large public and private sector organizations in the United States use job evaluation in their pay setting process.

Four general types or methods of job evaluation are often described in the personnel and compensation literature: the ranking, grade description, factor comparison, and point factor

methods.[1] Of these, the point factor method is most commonly used by major public and private sector organizations, and its popularity in state governments is increasing. It is also generally considered to be the most understandable and least subjective of the four approaches.[2] Because of its general acceptance as a means of measuring job content, the remainder of this chapter will focus on the point factor evaluation method.

In point factor evaluation systems, a set of factors is selected which reflect what the organization believes is important in valuing work. These are often referred to as "compensable factors," and are commonly variants of skill, effort, responsibility, and working conditions. A total point value or "weight" is assigned to each factor based on its relative importance to the organization. Each factor may then be divided into subfactors and each subfactor divided into levels of performance with varying point levels. For example, one factor may be "skill," worth a total of 100 points. Skill subfactors may be technical skill (with possible scores ranging from zero to 50 points), managerial skill (zero to 30 points), and human relations skill (zero to 20 points). A job is evaluated on each factor and subfactor and the total number of points becomes its job worth score. Within the context of the point factor approach, a variety of evaluation techniques can be used to set pay for a position or to study an organization's pay system. (Two general categories of such studies are discussed later in this chapter.)

Although job evaluation techniques are often contrasted with market-based approaches in determining pay for a position, market considerations play a role in most job evaluation systems. The factor weights in commercially-available evaluation systems are often developed on the basis of what the market pays for a given job content characteristic. The number of points a job receives in the evaluation process is commonly compared to the salaries of similar jobs in the relevant labor market to establish pay for that organization. Pay equity studies using job evaluations do, however, attempt to incorporate adjustments that are intended to remove any bias from the evaluation

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[1]For a more complete discussion of these methods, see pp. 3 to 5 in Description of Selected Systems for Classifying Federal Civilian Positions and Personnel, (GAO/GGD-84-90, July 13, 1984).

[2]Donald J. Treiman, Job Evaluation: An Analytic Review, Washington, D.C., National Academy of Sciences, 1979, pp. 2-4; Stephen McConomy and Bill Ganschinietz, "Trends in Job Evaluation Practices of State Personnel Systems: 1981 Survey Findings," Public Personnel Management, 12, Spring 1983, pp.1-12.

plan. (See page 35 of this report for two examples of this process.)

THE JOB CONTENT APPROACH

Using job evaluation, the job content approach to analyzing sex-based wage disparities attempts to determine the relative value of jobs to an employer and to identify any differences in pay between comparably valued male- and female-dominated job classes. The approach assumes that all jobs of equal value to an employer should be paid the same. Pay equity advocates contend, however, that jobs predominately occupied by women are not paid as much as equally valuable male-dominated jobs. By carefully studying the jobs and accurately determining their worth within an organization, they argue that the amount of that differential can be identified and corrected.

Available information indicates that all pay equity studies have used the job content approach and that all such studies have used point factor job evaluation methods. Also, all have followed a similar methodology.

--First, because it is not usually feasible to analyze all jobs within an organization, a decision is made on key or benchmark jobs to include in the study.

--Second, compensable factors and factor weights are selected and a scoring system is developed from which a total job worth score can be derived. The factors and their weights should represent features of the jobs which are legitimate bases for pay differentials.

--Third, the jobs to be evaluated are analyzed and all relevant job information is recorded in position descriptions.

--Fourth, the resultant job information is used in the organization's job evaluation process to determine the relative worth or value of the jobs in question. Each job is evaluated on each factor and a total score derived from the sum of the factor scores. As a result, the evaluated worth of each job to the organization is represented by a point score.

--Fifth, the average salaries of similarly evaluated male- and female-dominated jobs are compared. For example, the average salary of a male-dominated job evaluated at 500 points is compared to the average salary of a female-dominated job also evaluated of 500 points. Any difference in salaries is noted, and may be due to legitimate or illegitimate factors. Average salary may be measured in terms of incumbent's actual pay, grade assignments of the jobs, or in some other manner.

In many of the pay equity studies conducted by the states, a steering committee was established to help plan the study and resolve any problems that arose during implementation. The committee might decide which jobs will be studied, what methods will be used to analyze and evaluate the jobs, and the role of consultants in the evaluation process. A variety of affected interests are often represented on such committees, including management, employee organizations, women's groups, legislative bodies, and the private sector.

The participants in a job content study can vary widely depending on how the study is designed. The study can be conducted solely by consultants, by in-house pay and classification specialists, or by a combination of consultants and in-house specialists. Use of a combination of consultants and in-house personnel can provide both the technical expertise and the institutional knowledge needed for accurate job measurement. Similarly, job incumbents may be involved at a variety of stages during the study and in a variety of ways. Job incumbents may be represented on a steering committee, they may be participants in the actual analysis and evaluation of the jobs, or they may play no role at all. However, involvement of job incumbents is often viewed as important to the accurate description and evaluation of the jobs and in gaining acceptance of the study results.

Advantages and disadvantages of the job content approach

One advantage of using the job content approach to analyze sex-based wage differences is that it directly addresses the issue of comparable worth--whether jobs of equal value are being paid equally. While other methods may be used to study pay differentials between men and women, the job content approach is the only method which attempts to assess the worth or value of a job to an organization and analyze pay in relation to that evaluated worth. The point factor job evaluation method also has advantages over other types of job evaluation methods. For example, such an approach can:

--allow the analyst to use numerical indicators of job worth in making direct comparisons between jobs;

--minimize the degree of inconsistency and bias in a pay system by using explicit and clearly defined factors and factor weights; and

--permit flexibility in critical areas such as factor selection and factor scales, thereby facilitating management and employee acceptance of the results.

One disadvantage of the job content approach relates to the interpretation of results. In some studies, any wage differences between comparably evaluated male- and female-dominated

occupations is presumed to be the result of discrimination and thus should be eliminated. However, as discussed in Chapter 2, other explanations may exist for differences in salaries between men and women which may not be captured by the job content approach.

Other disadvantages of the approach center on the ability of the job evaluation process to measure the worth of the jobs being studied. In its 1981 report, Women, Work, and Wages,[3] the National Academy of Sciences noted that several features of existing evaluation systems make them "less than optimal" to resolve pay disputes: (1) factors and factor weights may be biased or may be chosen to replicate the existing wage structure, and therefore cannot be used to assess the possibility of bias in existing pay rates; (2) the entire evaluation process is inherently subjective and therefore may reflect cultural stereotypes about the value of work traditionally done by men and women; (3) the use of more than one evaluation plan within an organization for different sectors of the workforce (e.g., white collar, blue collar, clerical, technical, and professional employees) restricts comparisons between jobs in those sectors; and (4) potentially serious technical shortcomings in the use of statistical procedures to determine factors and factor weights. For example, if certain variables are improperly measured, their importance in the statistical equation will be misstated.

Other criticisms of this approach have focused on:[4]

--the use of evaluation factors which measure the same job dimensions, thereby overweighting those dimensions;

--issues involving the administration of the evaluation system, such as the representativeness of analysis and evaluation committees; and

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[3]Donald J. Treiman and Heidi I. Hartmann, editors, Washington D.C., National Academy Press, 1981.

[4]Howard Risher, "Job Evaluation: Problems and Prospects," Personnel, 61, January-February 1984, pp. 53-66; George T. Milkovich and Charles J. Cogill, "Measurement as an Issue in Analysis and Evaluating of Jobs," in Handbook of Wage and Salary Administration, 2nd edition, Milton Rock, editor-in-chief, New York, McGraw-Hill, 1984, pp. 10/1-10/14; David Thompson, "Eliminating Pay Discrimination Caused by Job Evaluation," Personnel, 55, September-October 1978, pp. 11-22; Richard W. Beatty and James R. Beatty, "Some Problems with Contemporary Job Evaluation Systems," in Comparable Worth and Wage Discrimination: Technical Possibilities and Political Realities, edited by Helen Remick, Philadelphia, Temple University Press, 1984, pp. 59-78.

--the reliability and validity of the job descriptions and evaluation scores.

Reliability refers to the consistency of the results obtained through the evaluation process. If different job analysts or job evaluators using the same system on the same jobs come to different conclusions regarding the relevant aspects of the jobs or their worth to an organization, the system of analysis and evaluation is not considered reliable. Validity refers to the accuracy of the job descriptions and evaluation scores, particularly whether they are measuring what they purport to measure. A valid system will be one in which the job descriptions accurately capture all compensable job aspects and the job evaluation scores accurately reflect the jobs' true worth to the organization. The validity of an evaluation system is difficult to gauge due to the lack of generally accepted criteria of job worth.

Despite these possible shortcomings, the National Academy and other analysts[5] have cautiously endorsed the use of job evaluations to study wage differentials based on sex. The National Academy noted that job evaluation plans "do provide a systematic method of comparing jobs to determine whether they are fairly compensated," and that the use of job evaluation scores to determine pay rates "will generally go some way toward reducing discriminatory differences in pay when they exist."

Many of the criticisms of job evaluation have focused on the way the evaluation process has been used, not as it is theoretically possible to use. A number of suggestions have been offered to improve such systems, including:[6]

--extensive job analysis using multiple methods (e.g., job content questionnaires, interviews, and observation) and involving a variety of sources (e.g., job incumbents, their supervisors, and job analysts) before attempting to determine job worth;

--periodic review and updating of job descriptions and specifications to ensure accuracy and relevancy;

--use of compensable factors that are not redundant and represent the value of jobs to the organization;

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[5]Treiman and Hartmann, p. 81; Beatty and Beatty, p. 76; Helen Remick, "Major Issues in a priori Applications," in Remick, pp. 99-117.

[6]Beatty and Beatty, p.76; Thompson, p. 21.

--use of weighting schemes which do not simply replicate existing wage hierarchies;

--use of only one evaluation plan for all employees; and

--testing the evaluation system for reliability and validity before full implementation.

POINT FACTOR METHODOLOGICAL OPTIONS

Most of the differences in methods of conducting a job content analysis may be traced to the approach's central feature--job evaluation. Two general evaluation strategies are available: (1) an "a priori" method in which factors and factor weights believed relevant to the organization are established before initiating the evaluation process; and (2) a "policy-capturing" method, in which factors and factor weights are analytically developed as part of the evaluation process to replicate the organization's existing pay system. Each of these methods has certain advantages and disadvantages and each may be modified in a variety of ways. However, many evaluation systems and job content studies fall somewhere between these two evaluation options, incorporating both policy-capturing and a priori features.

The a priori method

In the a priori method, factors and factor weights are selected based upon what are believed to be appropriate measures of job worth in that organization. This may be done by adopting a commercially-available evaluation system or by choosing factors and factor weights which are specific to the organization. As previously mentioned, the factor weights in commercially available a priori systems are commonly developed on the basis of what the market pays for a given job characteristic. The factors selected typically define job worth in terms of skill, effort, responsibility, and working conditions. For example, the Hay Associates' evaluation plan, the most widely used a priori method, employs four factor groupings: know-how, problem solving, accountability, and, when appropriate, working conditions. The Norman D. Willis and Associates' plan, used in Washington State and other locations, also has four factor groupings: knowledge and skills, mental demands, accountability, and, when appropriate, working conditions. In some plans, such as the Hay and Willis plans, these factors, subfactors, and point levels are graphically illustrated in "guide-charts." No overall standard of validity exists for a priori evaluation systems. However, a number of commercially-available a priori systems produce similar results.

The principal advantages of the a priori method are that it is relatively easy to use and that explicit criteria of job

worth are clearly established before any evaluations are conducted. In the case of commercially-available systems, the reputation of the system is usually well known, thereby allowing those involved in selecting the evaluation approach and those affected by that decision to have more information on which to judge the adequacy of the system than is available in non-commercial systems. A priori systems may also be more understandable and explainable than policy-capturing approaches, which rely on sophisticated statistical techniques to derive factor weights.

The principal disadvantage of this method is that, unless carefully selected, the factors, factor weights, and the terms used to describe the factors in commercially-available systems may be out of line with the job features that an organization wants to value. The factors which are appropriate in one organization may be inappropriate in another. In addition, such systems may incorporate bias in the way in which the factor scores are derived. For example, the factors may over-measure (and therefore over-value) characteristics traditionally found in male-dominated jobs such as physical effort or exertion, and fail to measure features common in female-dominated jobs, such as fine motor skills.

Because of the need for a close fit between the evaluation method and organizational needs, a priori evaluation systems are sometimes modified to measure job worth in different organizations more accurately. These modifications can include addition or deletion of certain factors or subfactors, use of different words to describe the factors, or similar alterations to established systems.

The state of Washington used an a priori approach in its 1974 pay equity study. The state used the Willis job evaluation system to compare the value of male- and female-dominated occupations and to determine whether any pay disparities existed between them. A 10-member advisory committee representing interests affected by the study was appointed by the governor to provide advice and to monitor the study process. The following procedure was used:

--First, 121 male- and female-dominated job classes were selected for study from the 3,000 job classes in the state and the higher education civil service systems.

--Second, position questionnaires were sent to a sample of 1,600 employees in the target occupations and approximately half of these employees were interviewed in an effort to obtain accurate job information. Two to four questionnaires considered representative of each job class were then used as the basis for the evaluations.

--Third, the Willis point-factor evaluation system was used to measure the value of each of the 121 job classifications.

--Fourth, the monthly salaries of comparably-evaluated male- and female-dominated classifications were compared. Monthly salary was measured by the arithmetic average of the lowest and highest step in the salary range for each classification.

Other states which have used an a priori job content approach to study sex-based wage differences include Minnesota, Connecticut, Oregon, and Vermont.

The policy-capturing method

In the policy-capturing evaluation method, factors and factor weights are developed using the organization's existing pay structure as the criterion of worth. Typically, a set of factors and subfactors that is believed to be related to the worth of the jobs being evaluated are selected. The jobs being studied are then scored on each factor, sometimes using extensive job content questionnaires. The jobs' factor scores are then statistically analyzed through regression analysis, and those factors found most strongly predictive of current salaries are most heavily weighted. Once the weights are established, all jobs selected for study are evaluated and a total point score is derived for each job.

One advantage of the policy-capturing method is that it is specific to the organization that uses it and makes explicit what that organization values in its jobs. Also, because the desired outcome of the approach is a replication of the organization's existing wage structure, the resultant pay scale will not disrupt the organization's compensation system.

The principal disadvantage of the policy-capturing approach in a study of sex-based wage disparities is that, without modification, it will not reveal any differences between the evaluated worth of a job and its current salary. The evaluation system will produce point scores consistent with existing pay, thereby capturing any bias that may already exist. As the National Academy of Sciences noted, such systems "can hardly serve as an independent standard against which to assess the possibility of bias in existing pay rates."[7]

To use a policy-capturing approach in a study of sex-based wage disparities, the approach must be adjusted for possible

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[7]Treiman and Hartmann, p. 81.

bias. In its report, the National Academy of Sciences cited two modifications to policy-capturing evaluation approaches which may be used to reduce bias in existing job evaluation plans, to develop new bias-free plans, and to identify specific instances of pay discrimination.[8] The first modification is a statistical technique which attempts to determine what the pay for female-dominated jobs would be if there were no discrimination. When the preliminary factor scores are statistically analyzed, another factor--the percent of job incumbents which are female--is added to the equation. This technique allows the analyst to determine whether the existing system is biased or not and, if so, to correct that bias when setting factor weights.

The second modification is similar to the first in that it attempts to determine what pay for female-dominated positions would be if there were no discrimination. In this technique, the criterion of job worth is not the pay for all positions in the organization, but rather the pay in jobs held by white males. The underlying assumption is that white males do not suffer from discrimination, so using their salaries as the criterion would eliminate bias and bring pay for equally evaluated female-dominated jobs in line with pay for male-dominated jobs.

New York State is conducting a pay equity study which employs a policy-capturing approach adjusted for bias using both modifications cited above. The state government and the New York Civil Service Employees Association requested the State University of New York's Center for Women in Government to examine the effects of sex and race segregation on salary administration in the system as a whole and in each job title. The study began in June 1983 and is expected to be completed in September 1985. The general methodology is:

--First, a customized 112 item job analysis questionnaire was developed using sex-neutral language and attempting to measure all relevant job characteristics, including those commonly associated with female- and minority-dominated occupations.

--Second, the job content questionnaire was administered to a geographically dispersed population of approximately 36,500 employees across 2,900 job titles.

--Third, once the results of the survey are compiled, a compensation model will be developed which will statistically determine which factors are most relevant in establishing current wages paid for jobs in the state employment system.

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[8]Ibid, pp. 82-89.

--Fourth, the resultant model will be statistically adjusted using both the male pay criteria and the "percent-female" modifications described above. Similar adjustments will also be made for minority-dominated positions.

New York is the only state known to have used a policy-capturing approach to assess wage disparities in sex-dominated and minority-dominated jobs. A 1980 pilot study in Pennsylvania, however, employed a somewhat similar methodology. That study was conducted at the request of the American Federation of State, County and Municipal Employees (AFSCME) by a team of Temple University researchers. Although the study documented a difference in wages between comparably evaluated male- and female-dominated occupations, study results have not been used in collective bargaining or pay setting.

RESULTS OF PAY EQUITY STUDIES IN STATE AND LOCAL GOVERNMENTS

Several state and local governments have conducted a priori job content studies and have increased or begun to increase compensation for jobs found to be underpaid in relation to their evaluated worth. Three states and two local governments which have done so are discussed in this section: Washington; Connecticut; Minnesota; San Jose, California; and Colorado Springs, Colorado. Several other states have made similar pay adjustments as part of general reviews of their pay and classification systems, but without conducting a pay equity study. (See map on p. 3 and app. II for a full description of state pay equity activities.)

Washington State

As noted previously a job content study was conducted by the consulting firm of Willis and Associates in the State of Washington in 1974. That study indicated that female-dominated occupations were paid an average of about 20 percent less than comparably evaluated male-dominated jobs in the state civil service. The state made no salary adjustments at that time, but did order further job evaluation studies in 1976 and 1980. At one point in 1977, the state governor requested a $7 million appropriation to begin raising women's pay levels. But a newly-elected governor subsequently eliminated that request from the proposed state budget.

In 1982, AFSCME and others filed suit in federal district court charging the state with violating state and federal civil rights laws, including title VII of the 1964 Civil Rights Act, in the implementation and application of its compensation system. Shortly before the case began in 1983, the state legislature passed legislation which committed the state to the concept of pay equity, required full implementation of comparable worth within 10 years, and began the process of making pay

adjustments based upon the job evaluation system results. Initial adjustments were limited to $100 annually per incumbent in jobs determined to be at least 20 percent underpaid.

Despite these changes, the federal district court ruled in 1983 that the state had violated title VII and was guilty of "direct, overt and institutionalized" wage discrimination. The court ordered the state to remedy the pay disparity between male- and female-dominated job classes and awarded back pay to September 1979. The state has appealed the district court ruling and arguments are expected in the federal circuit court this year.

Connecticut

A pilot pay equity study similar to the Washington State study was conducted by Willis and Associates in 1980 for the state of Connecticut. The study revealed a pay gap (8-19 percent) between similarly evaluated male- and female-dominated jobs in the classified state service. In 1981, the state legislature authorized a full-scale classification and evaluation effort using the Willis job evaluation system. The study is currently scheduled for completion in 1986.

In the study, jobs are generally being analyzed and evaluated one bargaining unit at a time. Once all jobs within a unit which collectively bargain are evaluated, the state and the union negotiate the point-pay relationship (i.e., how many points are required for placement in each salary grade) and the result of those negotiations are approved or disapproved by the legislature. The state's position in those negotiations is established through regression analysis of the evaluation results and local market rates. If the unit does not collectively bargain, the point pay relationship indicated by the regression analysis is approved or disapproved by the State's Office of Policy and Management. As of February 1985, 4 of the state's 11 bargaining units covered by the job evaluation system had been classified and evaluated and 2 units' pay adjustments had been implemented.

Minnesota

A task force established in 1981 by an advisory council to the Minnesota state legislature conducted a pay equity study of the state classified service using the Hay Associates point-factor guide chart method of job evaluation. The study documented salary disparities between comparably evaluated male- and female-dominated job classes and recommended that the legislature appropriate funds to eliminate the disparities. The estimated 1-year cost for full implementation of pay equity was about 4 percent of the state payroll.

In response to the study, the state legislature amended the state personnel law to establish a pay equity policy for employees in the executive branch and a procedure for making pay equity adjustments. The law requires the Commissioner of Employee Relations to submit to the Legislative Commission on Employee Relations a list of job classes which the job evaluation study indicates are inequitably paid and an estimate of the costs to equalize pay in those classes. The Commission then recommends an amount to be appropriated for those wage adjustments to the House Appropriations and Senate Finance Committees. Appropriated funds go directly to the various bargaining units based on the number of underpaid classes they represent, and may be used only for pay equity adjustments. Distribution of salary increases within each bargaining unit is negotiated through the collective bargaining process. In January 1983, the state legislature approved a biennial appropriation of $21.8 million for pay equity adjustments. If a similar amount is appropriated at the start of the 1985 legislative session, pay equity will have been implemented within 4 years from the time the first adjustments were authorized.

In 1984, the Minnesota legislature extended the state's pay equity policy to its local governments. The law requires each unit of local government (cities, counties, school districts, and other jurisdictions) to develop a job evaluation system, conduct a pay equity study, begin implementation of pay equity, and report their progress to the Department of Employee Relations by October 1985. Results of the local job evaluations are defined as private data for 3 years and may not be used as evidence of discrimination under state law during this period.

San Jose

In 1978, AFSCME requested that the city of San Jose conduct a study comparing the pay of male- and female-dominated nonmanagement job classes in the city. The Hay Associates' evaluation system had been adopted earlier that year to revise the pay structure for the city's management employees and gave rise to the union's request for a study of nonmanagement classes. The city council agreed, but it stipulated that the city would not be obligated to set pay based on the results of the study.

The study concluded that female-dominated job classes were paid less than comparably evaluated male-dominated classes. In May of 1981, the city began negotiations with AFSCME over the results of the study, but those negotiations stalemated and the union went on strike on July 5, 1981, when the existing contract expired. On July 14, 1981, an agreement was signed by the city and the union authorizing general salary increases and setting aside $1.45 million for "special equity adjustments" for female-dominated classes which the study found to be underpaid. The

current collective bargaining agreement provides that the city will no longer make such adjustments after 1986.

Colorado Springs

In 1980, the Colorado Springs city council passed an ordinance requiring internal equity in the pay system used for city employees. The Hay evaluation system was adopted as a means of determining job worth and achieving that internal equity. However, in October of that year, clerical employees formed an association and filed a formal grievance with the city council contesting the administration of the evaluation system's results. The clerical employees maintained that the city's salary setting practices, particularly the use of local wage rates to set their pay, resulted in lower pay for their work than comparably-valued male-dominated jobs whose pay was set using the Denver market. The city council agreed with the clerical workers and ordered pay adjustments to be made over a 4-year period.

Although the city council believed that clerical pay should be increased, the city manager suggested that not all of the difference between equally evaluated male- and female-dominated jobs was due to discrimination. He decided, and the parties mutually agreed, that the comparability adjustments would compensate the clerical employees for 80 percent of the difference between their current pay rate and that of comparably evaluated male-dominated jobs. The adjustments, which began in 1982, are estimated to cost $1.8 million over 4 years.

GENERAL STEPS IN CONDUCTING A JOB CONTENT STUDY AT THE FEDERAL LEVEL

The preceding discussion of the job content approach and its use in state pay equity studies suggests several general steps that should be followed in applying this approach to a federal pay equity study. They include:

--developing and articulating a specific goal;

--deciding which pay systems and jobs should be included;

--selecting a job evaluation method;

--deciding on methods for job documentation;

--deciding how the evaluation method should be implemented; and

--determining what methods should be used to compare the pay of male- and female-dominated jobs.

In the last session of Congress, legislation was introduced which called for a pay equity study of the federal pay and classification system (H.R. 5680). The study steps described in the House Committee Report on that legislation are similar in many respects to the job content steps described below. (See pp. 58 and 59 for a discussion of those steps.) For example, both provide for use of job content questionnaires to gather needed information, use of job evaluation procedures to determine the value of the jobs to the federal government, and for testing the results of the evaluation process against the current pay system.

I. Developing and articulating a specific goal

A job content study at the federal level could have a variety of goals. And, depending on the goal or goals selected, each of the subsequent steps would vary accordingly. Therefore, as the first step in the process, the Congress or its designee should specify a goal or set of goals for a job content study of the federal government. The goal or goals should be as specific as possible to avoid misinterpretation, and could be part of a statement of policy from which subsequent decisions could be made.

As in the economic approach, some goals would be more difficult to achieve than others. If the measurement of sex-based wage discrimination is selected as the goal, study designers would, again, have to define "discrimination." Alternatively, as some states have done, the study could focus on ways to develop and implement a methodologically correct and bias-free job evaluation system across all executive branch agencies. This approach would avoid the need to make assumptions about wage discrimination while seeking to achieve more equitable pay and classification results. However, if this goal is selected, those in charge of such a study would still have to determine what constitutes a "methodologically correct and bias-free" evaluation system.

II. Deciding which pay systems and jobs should be included

Both the job content approach and the economic approach described in chapter 2 require early designation of the scope of the study, but in the job content approach it is the job and not the individual job incumbent which is measured. In both approaches, though, the first decision to be made in this step is the selection of the pay and classification systems which will be included in the study. Any or all of the over 60 pay systems can be included in the study. However, including a rank-in-person system would be appropriate only if it is recognized that the fundamental basis for pay in that system--the characteristics of incumbents--is being tested and may be changed by implementing an approach which measures job content.

As stated in chapter 2, focusing on the GS and FWS systems has several advantages, as they (1) are the two largest systems, covering most executive branch agencies and 83 percent of all full-time personnel in those agencies; (2) cover most white-collar and blue-collar occupations in the executive branch; (3) are both rank-in-position systems; and (4) are contained in only two pay statutes. If the GS and FWS systems are selected, the results will be applicable only to those two systems. Subsequent studies could be conducted to include other pay systems.

Once the pay systems the study will encompass are decided on, a related coverage decision involves the selection of the jobs within those systems to be studied. As noted in chapter 1, there are 441 occupational series in the GS pay system and 444 in the FWS system. However, each series can contain several distinct jobs. For example, a particular series may be divided by grade levels (e.g., grades 7, 9, 11, 12, 13, 14, and 15), each of which may denote substantially different jobs within that series. Thus, a job may be defined in terms of both its series and grade--e.g., a grade 7 secretary or a grade 12 economist. OPM refers to the series-grade definition as a "class," which includes all positions which are similar in subject-matter, level of difficulty, and qualifications. If the series-grade definition is not used, however, designation of discrete jobs may be difficult, as OPM said they do not require that agencies specify the types of different jobs used in any particular series.

After the appropriate unit of analysis--the job--has been defined, other criteria may then be employed to select jobs for the study. Common selection criteria in state pay equity studies are jobs which are male- or female-dominated (usually defined as being 70 percent or more of one sex),[9] highly populated, and representative of the range of jobs and salaries in the organization. Instead of selecting only male- or female-dominated jobs, however, study designees may wish to include some jobs which are balanced in sex-composition. To the extent possible, however, jobs with known classification problems (e.g., ambiguous or widely varying duties) should be excluded from the sample.

III. Selecting a job evaluation method

The discussion earlier in this chapter of the job content approach suggests two basic evaluation options for the federal

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[9]The use of 70 percent male or female as the measure of sex domination in an occupation is simply traditional and is not statistically derived. Other measures may be used. For example, in the New York study, the percent female used is 1.4 times the average percent of females employed in all jobs.

study--an a priori method or a policy-capturing method. Within each method, other options and modifications are possible, each with certain advantages and disadvantages. The choice between these options is contingent upon the general goal of the study. If the goal is to measure job content in a manner different from the existing system, an a priori evaluation strategy should be used. If the goal is to represent current federal wage practices, a policy-capturing method should be used.

Another option to be considered is using an existing point factor system such as the Factor Evaluation System (FES) method now used for certain GS positions. If used, though, FES must be modified as necessary to cover the chosen pay systems and occupations and to remove any methodological weaknesses or bias. Application of FES would represent a merger of a priori and policy-capturing methods. As used in a job content study, FES would qualify as an a priori system because factors and factor weights would be specified before any evaluations are conducted. Yet, FES was designed to replicate the existing GS grade structure, so its origins are in the policy-capturing method. FES is also relatively familiar to federal employees and has been used as a model for other evaluation systems and pay studies. Use of FES could have the effect of speeding study completion and keeping study costs down, particularly if in-house classification specialists accustomed to applying it are used in the job analysis and evaluation processes. Major modification of the existing system could, however, reduce the familiarity of FES to in-house specialists.

The choice of a particular evaluation method and the selection of appropriate factors and weights is also somewhat contingent upon the scope of the study. For example, different factors and weights may need to be used if the FES system, now used for nonsupervisory GS positions only, is extended to cover supervisory positions and/or positions in FWS. Generally, the broader the coverage of the study (e.g., all federal pay systems) the more difficult it will be to select and weight factors which will evaluate all jobs accurately. Regardless of which evaluation system is chosen, however, the factors and weights should be tested for bias and the reliability and validity of the results examined before being used in the study.[10]

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[10]One way in which factors and weights may be tested for bias is through regression analysis. In this approach, each factor is analyzed to see whether it predicts the sex of the job incumbents. If so, the objectivity of the factor and its ability to predict wages is closely examined to determine whether it should be retained. The reliability and validity of evaluation results are discussed on p. 31.

IV. Deciding on methods for job documentation

The accuracy of the evaluation process depends on the accuracy of the job content information used in that process. That information may come from a variety of sources, including existing federal position descriptions and classifications, job content questionnaires, interviews with job incumbents and their supervisors, and/or observation of the job by analysts. A combination of information sources is often considered the best means of documenting relevant aspects of the jobs being studied.

If current position descriptions and classifications are used, however, care must be taken to ensure their accuracy. Previous OPM reports[11] indicate there are numerous problems with the accuracy of existing job documentation. Also, current federal job documentation procedures are not uniform across classification systems. That is, different information on jobs may be collected or the same information may be collected but recorded in a different format (e.g., narrative and FES standards within the GS system). Care must therefore be taken to assure consistency in existing job documentations.

If additional job information is needed, a sample of job incumbents and/or their supervisors could be surveyed with a job content questionnaire. This approach is particularly useful if quantitative job content information is required by the chosen evaluation method. The questionnaire should be designed to capture all relevant (i.e., compensable) job factors in an unbiased manner. The sample of incumbents to be surveyed must be carefully devised to ensure that the results are representative of the duties of all job incumbents. Each job sample should be randomly selected and of sufficient size to allow presentation of the data at an acceptable level of statistical confidence. The sample may also be stratified by agency, pay system, level of employee experience in the job, or in some other manner depending on how the results are to be used. As noted in chapter 2, agency-specific data can allow any subsequent actions to be more focused. Interviews with selected questionnaire respondents or observation of the job itself by analysts can also provide more detailed job information.

V. Deciding how the evaluation method could be implemented

Evaluations may be conducted by a single individual, several individuals acting separately, or a committee of evaluators. Those involved may be outside consultants, in-house

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[11] U.S. Civil Service Commission, Report on the Study of Classification Accuracy in GS Grade Levels 12 through 15, December 1974; U.S. Office of Personnel Management, A Report on Federal White-Collar Position Classification Accuracy, February 1983.

classification experts, or job incumbents and/or their supervisors. The relevant literature and state pay equity experiences suggest that a combination of several groups operating as a committee may be the most reliable evaluation format.

If a committee of evaluators is used, the experiences of prior studies indicate that the committee should be generally representative of the work force being evaluated (e.g., sex, race, union membership, and/or agency). Although it is unclear whether the composition of such committees affect the rankings of jobs, a representative committee can ensure that a variety of viewpoints are considered, thereby enhancing the acceptability of evaluation results. Committee members can be selected based upon any number of other criteria, including their understanding of the evaluation system, ability to apply a structured evaluation format, and willingness to participate in the process. All those selected should be thoroughly trained before any evaluations are conducted.

The role of consultants in the evaluation process can vary widely depending on the nature of the evaluation system selected. With commercially-available systems, for example, the consultants' role is more apt to be one of providing specific technical guidance on system components and proper system application. With internally-developed or revised systems, the consultants' role may extend to broad classification and evaluation guidance. In any case, the experiences of the states suggest that consultants are an important source of technical expertise and can help ensure consistency in the application of the evaluation instrument, but that actual evaluation of the jobs should be carried out by organization members familiar with the jobs being studied.

VI. Determining what methods should be used to compare the pay of male- and female-dominated positions

The final step in the study process involves comparing the pay of similarly evaluated male- and female-dominated occupations and determining whether any disparity exists. The measure of pay used in this step must be carefully chosen because different results can be obtained depending on which measure is used. For example, if the average pay for current incumbents is used, this figure will include factors other than job content which can influence an individual's pay in the federal pay and classification systems. These factors include seniority in the job, job performance, locality pay differences, and special rates for hard-to-fill positions. Incumbents of 500 point, male-dominated jobs may be justifiably paid more than incumbents of 500 point, female-dominated jobs. This would be the case if those incumbents have been in those positions a longer average period of time, work in an occupation paid on the basis of local prevailing rates, or possess some other factor deemed an appropriate basis for federal pay differentials.

Other measures of pay may be less susceptible to non-job content pay influences. If, for example, the minimum or mid-points of the jobs' grade assignments are compared, variables such as the seniority of incumbents in those positions will be controlled. This method would permit a clearer comparison of jobs on the basis of content than simply comparing the pay of job incumbents. However, if the GS and FWS system are the focus of the study, a standardized grade structure must be agreed on because grades are not equivalent in the two systems.

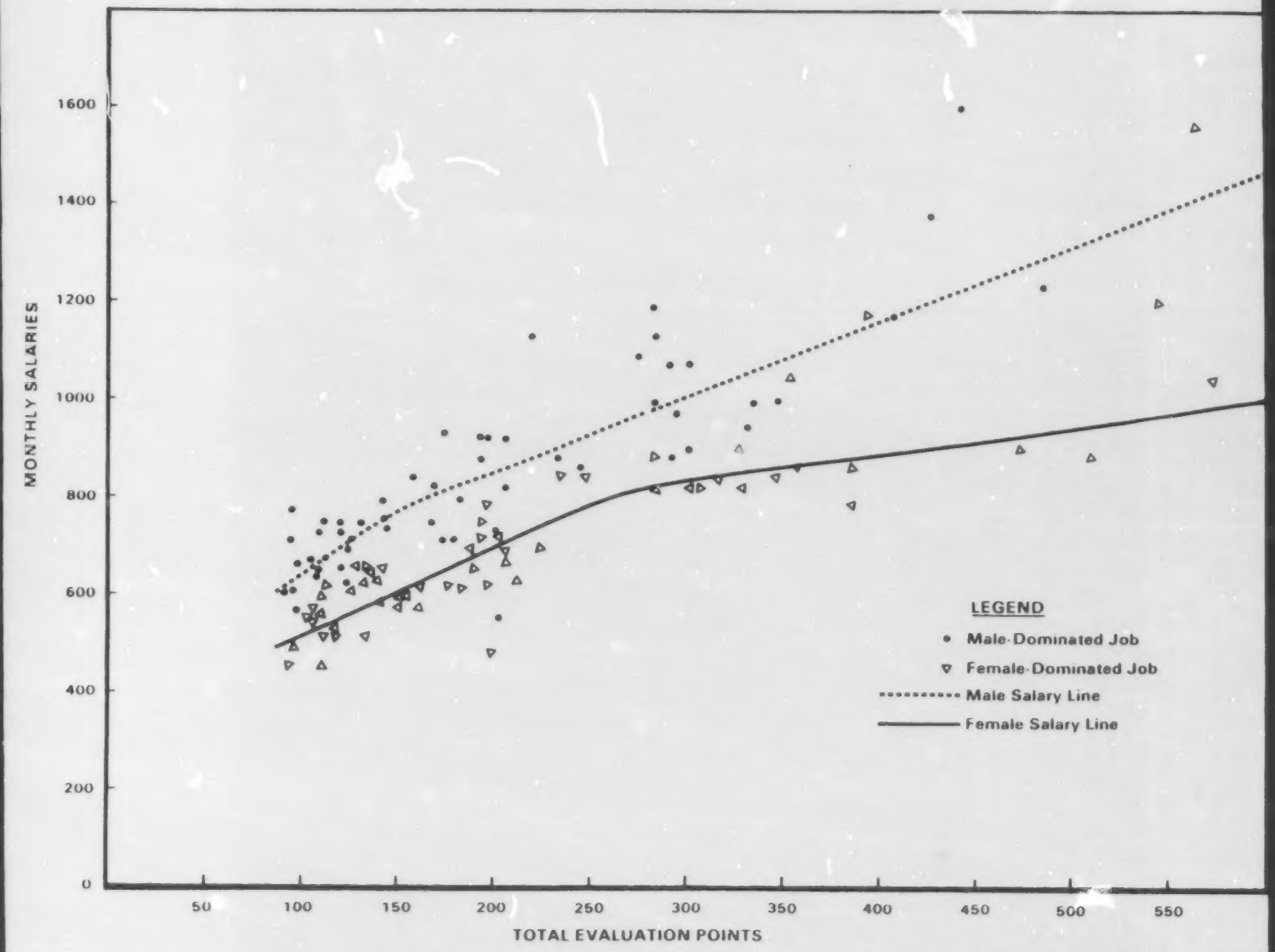
The comparison of evaluation points to pay for male- and female-dominated jobs may be illustrated in any number of ways. Perhaps the most easily understandable is a table in which the pay for similarly evaluated male- and female-dominated jobs is shown. The following table is an example of this technique, and is from the 1974 Willis study in Washington State. There, salaries were developed using the arithmetic average of the lowest and highest step in the salary range for each classification.

Men's and Women's Monthly Salaries for
Comparably-Evaluated Jobs
State of Washington - August 1974

Points	Men's Salary	Women's salary
100	$ 644	$516
150	776	604
200	852	692
300	1,005	826
450	1,235	913

Another approach is to plot the point/pay relationship graphically and show whether male- and female-dominated jobs are paid on the same statistical basis. If not, male- and female-dominated jobs will be in generally different positions on the chart and two pay lines will be evident. The following chart illustrates this technique, again from the 1974 Washington State pay equity study.

POINT/PAY INTERSECTS AND PAY LINES FOR MALE AND FEMALE OCCUPATIONS IN THE STATE OF WASHINGTON, AUGUST 1974



Source: Norman D. Willis and Associates

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CHAPTER 4

SELECTING A STUDY APPROACH AND RELATED CONSIDERATIONS

The preceding chapters have provided background information on pay equity and discussed two potential approaches--economic and job content analysis--to study that issue in the federal government. This chapter compares the two methodologies and goes on to suggest that there is a third way in which to carry out such a study, i.e., through an approach which uses both economic and job content studies. A combination approach has been used on a sequential basis by the state of North Carolina and its experience to date is described. Also described are the efforts of several researchers who have sought to use both economic and job content factors simultaneously in an effort to explain wage differentials.

Regardless of which approach is selected, however, several related matters need to be resolved, such as designating who should carry out the study, determining costs, and establishing time frames. Those matters also are discussed in this chapter.

COMPARING ECONOMIC ANALYSIS TO THE JOB CONTENT APPROACH

As reported in chapter 2, economic analysis can take a variety of different forms, yet each form generally is characterized by a similar goal--to measure and explain, to the extent feasible, existing wage differentials. An economic analysis of wage differentials can yield useful insights into the relative importance of various factors which give rise to pay differences in the federal government. Such information provides one means for determining whether systemic changes are needed to deal with inappropriate wage differentials. Economic analysis alone, however, provides little guidance as to whether and, if so, to what extent the pay for any particular job ought to be adjusted. And, at least in part for this reason, economic analysis has not been used in the pay equity studies conducted by the states or private sector employers. Instead, these studies have invariably relied on the job content approach.

Whatever the specific methodology that may be employed, the job content approach seeks to develop a measure of the relative value of jobs--rather than individual employees--to an employer. The job content approach thus is another tool through which to gain insights into wage differentials. However, compared to economic analysis, job content analysis provides less insight into how pay inequities occurred.

In any case, both the economic analysis and job content approaches have some value as means for dealing with the issues of pay equity and wage disparities by sex. To this point, the two methods have been presented as separate, alternative design methodologies. And each has been shown to have different strengths--the latter as a useful means to identify specific pay disparities among employee groups and the former as a useful means to explain wage differentials and their causes. Given this, it may be both feasible and desirable to include both approaches within the broad context of a federal pay equity study.

USING BOTH ECONOMIC AND JOB CONTENT APPROACHES IN A FEDERAL PAY EQUITY STUDY

Both the economic and job content approaches may prove useful in explaining wage differentials by sex in the federal government. However, in our view, neither approach is sufficient by itself to explain the wage gap. The job content approach alone may fail to consider important human capital or institutional variables (e.g., seniority, training, or union contracts). Similarly, the characteristics of the jobs (e.g., the skill, effort, and responsibility required) may be ignored if only the characteristics of employees or the workplace are considered.

What is needed, then, is an approach in which the advantages of both the job content and economic approaches complement each other. Use of both approaches can provide a clearer understanding of how federal wages are set and would be less susceptible to charges that important explanatory variables have been ignored. Two ways in which this combined approach has been used--a sequential method and a simultaneous method--are discussed below.

The sequential method

In a sequential study, either the job content or the economic approach is used first and then the other type of analysis is conducted. After both studies are completed, the results are combined to illustrate the total explanatory effect of all variables. In this way, consideration is given to the characteristics of the jobs, job incumbents, and the workplace. However, the results of these analyses cannot be simply added together, because each approach may be measuring the same underlying concept. For example, the education of job incumbents may also be measured by the skill or knowledge required by the job itself. Therefore, to use both approaches in a complementary fashion, a data analysis method must be developed which will eliminate the possibility for double measurement of those variables.

Another problem with the sequential method involves differences in the format of results obtained under each approach. The product of the job content approach is usually a point score or pay differential between sets of male- and female-dominated jobs. In contrast, economic analysis commonly yields a statistical equation indicating the explanatory power of a set of variables. For the results to be directly comparable, a technique must be developed to combine the results of the two approaches in a common format.

A preliminary sequential study was conducted from 1980 to 1982 in the state of North Carolina. There, the Office of State Personnel first used human capital and institutional variables to examine wage disparities by race and sex in state employment. Four factors believed to affect wage differentials--age, education, length of service, and supervisory responsibility--were used in the study. The study found that:

--at every education level, white males had a salary advantage over all other subgroups (i.e., white females, black females, and black males);

--white males were more likely than any other subgroup to hold jobs requiring higher educational requirements than they actually possessed;

--increasing years of aggregate service were more highly rewarded for white males than any other subgroup;

--a statistical analysis which controlled for education, years of aggregate service, age, and supervisory responsibility indicated annual salary "penalties"[1] due to race or sex were $2,213 for black males, $2,529 for white females, and $3,271 for black females; and

--among officials and administrators and professional job categories, the controlled variables accounted for only one-third of the identified salary differential.

At the conclusion of the economic analysis, the Office of State Personnel used a type of job content analysis to determine whether equally evaluated jobs were being paid the same. Point factor ratings produced for the state governments of Idaho and Washington were matched to selected North Carolina job

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[1]The term "penalties" is a statistical comparison mechanism where one group is held constant as a standard for comparison. In this case, the group used as the standard for comparison was white males.

classes.[2] From these point factor ratings, comparisons in pay by race and sex were made. These comparisons showed that:

--Female-dominated jobs received an average of $27.48 per evaluation point, while male-dominated jobs returned $40.44 per point. Similar results were also obtained when substituting starting salaries for average salaries.

--Almost two-thirds of the job classes paying more than one standard deviation[3] above their evaluated worth had no female or black incumbents.

--Jobs paying one standard deviation below their evaluated worth were heavily dominated by females and blacks.

--Among equally evaluated job classes, the mean[4] salary of female-dominated positions was 78.8 percent of the mean salary of male-dominated positions.

In summary, using economic and job content analyses, the North Carolina study identified and examined differences in compensation by race and sex among state government employees. The 1982 study report concluded:

> "The considerable direct effects of race and sex (that is, those not transmitted through differences in educational levels, years of aggregate service, occupational placement or supervisory placement) indicate that other, perhaps, illegitimate sources of salary disparities are present."

In 1984, the North Carolina General Assembly appropriated $650,000 for a broader pay equity study. North Carolina has since contracted with a private consulting firm to: (1) conduct a comprehensive analysis of the State Personnel System to identify wage policies that inhibit pay equity; (2) install a quantitative job evaluation system which establishes the relative value or worth of state positions; and (3) develop a pay system which is objective, competitive, and equitable within and across all groups. A Pay Equity Advisory Committee, consisting

---

[2]Due to uncertainties of this procedure, North Carolina qualifies the findings from this portion of the study as hypothetical in nature and unable to be generalized to North Carolina jobs as a whole.

[3]"Standard deviation" is a statistical term that measures the distribution of a given value relative to its mean.

[4]A "mean" salary refers to a statistical calculation of the average salary. Specifically, in this case, all salaries in dollars were added and divided by the number of employees who received that salary.

of seven state senators and seven state representatives, was created to oversee the study.

The simultaneous method

Another way to use both job content and economic approaches is to develop a study design which allows both to be done simultaneously. In that design, variables measuring characteristics of the job, job incumbents, and the workplace are considered together in a way which controls for overmeasurement and produces results in a common format. Data is gathered through a job content survey of a sample of employees, supplemented as necessary by other information. The data is then statistically analyzed and the results are used to indicate the percent of the wage gap explained by each of the variables included in the equation. If the data is collected properly, the statistical analysis could highlight the differences between each of the models and compare the results of each approach--job content alone, economics alone, and job content and economics combined.

One study which incorporated both job content and economic approaches in a simultaneous research design was conducted in 1980 by Treiman, Hartmann, and Roos.[5] Using 1970 census data, they empirically analyzed 499 occupations using individual and job content variables to attempt to predict the median earnings of job incumbents. The individual variables used were mean school years completed and mean years of post-schooling labor force experience. Four job content variables were measured using data from the Department of Labor's Dictionary of Occupational Titles--substantive complexity, motor skills, physical demands, and unfavorable working conditions. A final variable, percent female, also was included.

The following chart illustrates the results of this research. The solid line is a regression of mean earnings on percent female. The broken line is a regression of mean earnings on percent female controlling for the six individual and job characteristics.

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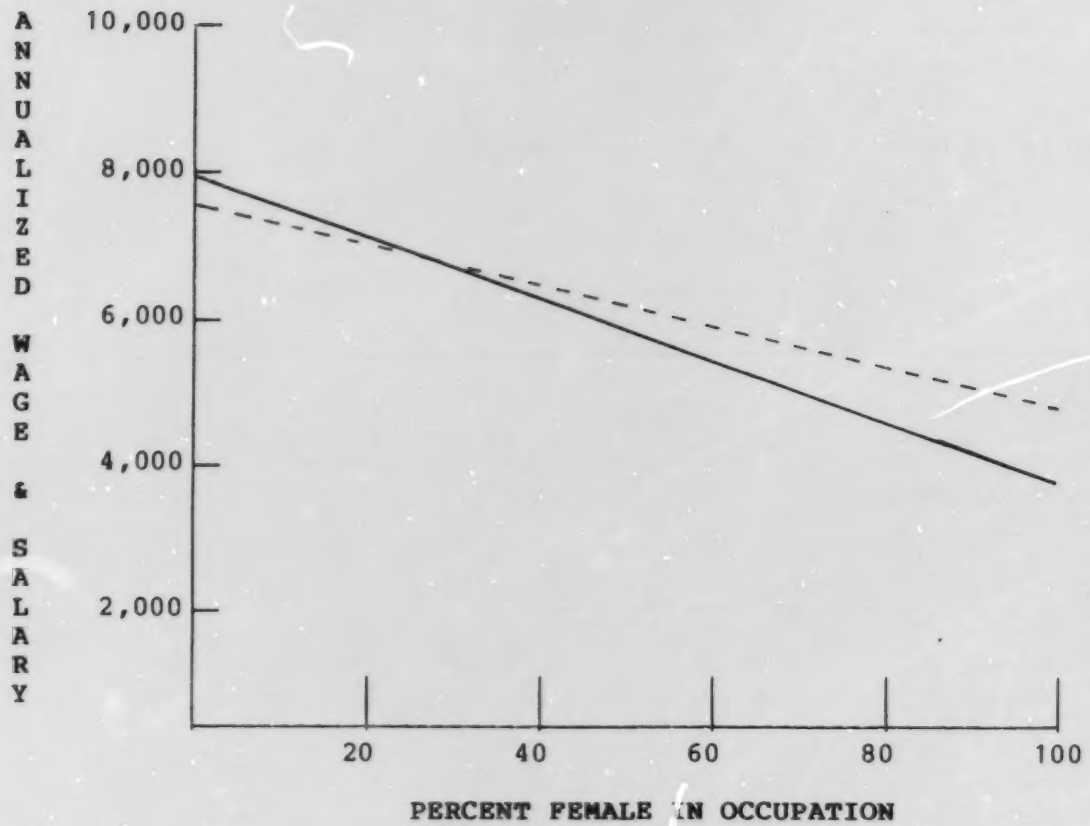
[5]Donald J. Treiman, Heidi I. Hartmann, and Patricia Roos, "Assessing Pay Discrimination Using National Data," in Comparable Worth and Wage Discrimination: Technical Possibilities and Political Realities, edited by Helen Remick, Philadelphia, Temple University Press, 1984, pp. 137-154.

REGRESSION DEMONSTRATING THE EFFECT OF
SEX SEGREGATION ON WAGES



The chart indicates that the sex composition of an occupation had a strong effect on the earnings of incumbents, and that this effect was independent of job content and individual characteristics. In any case, a decision as to which, if any, combination method to use, still leaves open the questions of who should conduct such a study, how much it will cost, and how long it will take to complete.

DECIDING WHO SHOULD CARRY OUT THE STUDY

A decision to conduct a pay equity study at the federal level involves concerns of national importance on which no clear consensus has yet formed. Accordingly, those selected to carry out the study must be as objective as possible and represent all sides of the issue. Because the study may involve the use of complex job content and/or economic analyses, those involved in the study must also possess or have available a high level of technical competence in these areas. Finally, because a federal pay equity study may be a lengthy and difficult undertaking, those selected to carry out the study will need sufficient resources to complete the task in a reasonable amount of time.

The experiences of the states in conducting pay equity studies and the experiences of other federal studies suggest that two groups of participants should be involved in carrying out the study--a steering committee and a group of technical experts.

The concept of a steering committee has particular appeal from the standpoint of objectivity, for it could be composed of a broad spectrum of individuals with differing views on the pay equity issue. Members of the committee could include experts from the fields of equal employment opportunity, compensation, classification, and economics; and representatives from Congress, women's groups, employee organizations, and the private sector. Also, Congress may wish to include one or more representatives from OPM on the steering committee, as it is the federal agency which would be responsible for implementing any policy changes that may arise from a pay equity study.

The steering committee could report to Congress and could be entrusted with decisionmaking authority, subject to congressional oversight, to facilitate resolution of a number of policy issues. Those issues may include:

--deciding on a precise goal or goals for the study;

--determining what pay systems will be included in the study;

--deciding how jobs and/or job incumbents will be selected for study (e.g., simple random or stratified samples);

--deciding what general type of job evaluation will be used (policy-capturing or a priori) and, within each category, what particular system seems most appropriate; and

--determining what analytic technique will be used to interpret the study results.

To resolve these issues and to carry out the study, the steering committee will need to call upon experts in a variety of disciplines. Some experts may be found within the government. For example, expertise in sampling and survey design could be obtained from the Census Bureau; expertise in economics and labor markets could be drawn from the Department of Labor. Assistance could also be obtained from outside the government. In this regard, various economists and job evaluation experts have indicated to us that they would be interested in conducting analyses of wage differentials in the federal sector.

With respect to our potential role in carrying out part or all of the study, several concerns arise. First, depending on the extent of our involvement, we might find it necessary to augment our staff through direct hire or contract with experts

from the fields of compensation and/or economics. Second, there is a question as to whether we could best serve the Congress as a study participant or as an independent reviewer of study design, progress, and results.

COST AND TIME CONSIDERATIONS

Given the variety of options available and the related policy decisions that need to be made, it is infeasible to provide accurate estimates of the cost of and time frame for a federal study. However, some information on costs and time frames is available based on the experiences of the states.

As noted in chapter 1 and appendix II, the states have conducted a variety of job content studies. Complete and consistent data for the various state studies are not available, however. Moreover, state studies have been of different scope. For example, Connecticut originally conducted a pilot job content pay equity study of 120 of their 2,600 job titles at a cost of $30,000, which was completed in 3 months. The state is now in the process of conducting and implementing a complete study of the state's classification system. This study began in 1981 and is expected to be completed in 1986. Implementation costs as of August 1984 were $600,000, which includes internal operating costs and consultant fees, but not the costs incurred by other state agencies. Other states have spent varying amounts depending on the type and scope of the study. Some examples include $650,000 in North Carolina; $500,000 in New York; $301,000 in Maryland; and $85,000 in Minnesota. (See map of state pay equity studies on page 3 and description of study types in app. II).

The time expended by the states in conducting job content studies has generally been less than 18 months, although implementation of study results has taken considerably longer. The panel of state experts that we hosted as a part of this study generally agreed that pay equity studies should be conducted quickly, preferably in less than 18 months. They pointed out that a more time-consuming approach could result in documentation for jobs analyzed early in the process becoming out of date before the study is completed. This problem can, however, be minimized by employing a relatively large number of people to carry out the repetitive aspects of the study (e.g., conducting job analyses and evaluations).

Still, until a series of policy decisions are made, neither the expected costs nor the anticipated time frame for a federal study can be projected. However, if the Congress were to appoint a steering committee for the federal study, one of the committee's tasks could be to develop a proposed budget and a proposed study time frame for congressional review.

APPENDIX I

Congress of the United States

Washington, D.C. 20510

November 15, 1984

The Honorable Charles A. Bowsher
Comptroller General of the United States
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Comptroller General:

During the 98th Congress, much interest was expressed in both the House of Representatives and the Senate regarding the issue of wage-based sex discrimination in the federal government. The House passed legislation mandating a study of the federal pay and classification systems to determine if they discriminate in wages on the basis of sex. In the Senate, similar legislation was introduced but not passed.

In the 99th Congress, both the House Post Office and Civil Service Committee and the Senate Subcommittee on Civil Service, Post Office, and General Services intend to continue the work begun in the 98th Congress regarding pay and classification disparities which may exist in the federal system, as indicated in discussions relating to this issue on both the House and Senate floors on October 10, 1984 (H11768-70 and S14003).

On December 10, 1982, the House Subcommittees on Civil Service, Human Resources, and Compensation and Employee Benefits requested the General Accounting Office to study and report on the principal systems for classifying federal and non-federal civilian personnel in order to provide background information for evaluating sex bias in federal classification systems. The first phase of your report, dated July 13, 1984, was helpful in describing how various federal classification systems operate. We anticipate that phase two of the report, which will analyze non-governmental job classification systems, will be equally informative.

APPENDIX I

In addition to your efforts to complete this report, we believe that a report presenting various options for selecting an appropriate scope and methodology for a thorough pay equity analysis of federal executive agencies' pay and classification practices (to determine whether job classifications held predominantly by female workers are underpaid in contrast to job classifications held predominantly by male workers although the job qualifications, working conditions, and requirements are comparable) would be very useful to the appropriate House and Senate Committees.

We, therefore, request that you prepare such a report and that the report include:

(1) An evaluation and analysis of the advantages and disadvantages of various methodologies that could be used in a study to accurately and effectively determine whether and, if so, the extent to which sex-based wage discrimination exists in the federal pay and classification systems (including but not limited to those methodologies used in all of the studies underway or completed in the various States, with a description of follow-up action which may have resulted from such studies in those States), with particular emphasis on which of these methodologies would be suited to be used to evaluate accurately and effectively the federal pay and classification systems. In particular, we ask that you address the methodology described in the enclosed excerpt from the House Committee report (98-832).

(2) An estimate and analysis of the time that would be involved in conducting such a study.

(3) Estimates of the cost of conducting such a study on a contract basis or directly by a branch of the federal government.

(4) An analysis of the advantages and disadvantages, in terms of conducting an objective and thorough study, of having the study done by a private contractor selected by the Office of Personnel Management, by a private contractor selected by the General Accounting Office, by the General Accounting Office alone, or by the Office of Personnel Management alone, or under some other suitable arrangement that you might also believe should be considered.

(5) A determination of the relationship of the current Office of Personnel Management review of the classification process to be completed by the end of the year to the objectives of the pay equity analysis that we are asking GAO to address in this request.

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We also request that your Office consult with federal employee organizations, job evaluation experts, and the Office of Personnel Management throughout the preparation of the report.

In order that the information be reviewed in a timely fashion by appropriate Members of the House and Senate, the report should be completed not later than March 1, 1985.

We appreciate your attention to this matter and look forward to receiving your report.

With warm regards,

Cordially,

Mary Rose Oakar
Chair
Subcommittee on Compensation
and Employee Benefits
Committee on Post Office
and Civil Service
U.S House of Representatives

Ted Stevens
Chairman
Subcommittee on Civil
Service, Post Office,
and General Services
Committee on Governmental
Affairs
U.S. Senate

William D. Ford
Chairman
Committee on Post Office and
Civil Service
U.S. House of Representatives

Jeff Bingaman
Ranking Minority Member
Subcommittee on Civil
Service, Post
Office, and
General Services
Committee on
Governmental
Affairs
U.S. Senate

Dave Durenberger

Alan Cranston

Daniel Evans

Enclosure

Thomas F. Eagleton
Ranking Minority Member
Committee on Governmental
Affairs
U.S. Senate

APPENDIX I

Excerpt (pgs. 12-14) from House Report (98-832)
to accompany HR 5680

* * *

The committee realizes that given the time and resources available, it would be difficult for the OPM to conduct a survey of all white- and blue-collar positions in the Federal Government and recommends that a representative sample of the work force throughout the Federal Government be taken, evaluating all job titles and occupations which are sex-segregated; i.e. 70 percent of the incumbents are members of the same sex and have more than 25 persons occupying these positions.

All classification and pay setting systems within the Federal Government such as exempt, nonexempt, supervisory, nonsupervisory, professional, administrative, technical, and clerical shall be included in the sample of job titles and occupations. It is important to note the committee's intention regarding the scope of the study. The same system and job evaluation techniques shall be applied to all positions in the sample. ***

The statistical sample of benchmark jobs is a vital part of the study since the job descriptions serve as the key source of information on which job evaluations are based. The data for the job descriptions should be collected through a job content questionnaire which is self-administered and quantitative. The committee believes that federally employed industrial and econometrical psychologists and sociologists familiar with existing social science measurement techniques such as the Position Analysis Questionnaire, the Job Activity Preference Questionnaire, and the Job Diagnostic Survey should take part in developing the questionnaire.

* * *

The job content questionnaire should be supplemented by information collected through interviews with job incumbents and supervisors, and through observations by job analysts. Job descriptions for the job titles and occupations in the sample are to be developed by amalgamating responses to the job content questionnaire and appropriate supplemental information.

After the job descriptions have been developed, the jobs are then to be evaluated according to two standards. First, the committee wants OPM to analyze the job descriptions using the current classification process. In this way, the study will establish a basis of comparison between evaluation plans.

The second standard by which the committee intends OPM to measure the sample jobs would be based on an a priority system. To avoid several problems endemic to many job evaluation plans, the OPM should first establish the job content value of the bench mark sample independent and apart from compensation considerations. Once job content is derived, wages are then associated with the quantitative measures for the purpose of comparability analyses. Such an objective approach should employ numerical values assigned to a variety of work factors. The committee suggests that the factors should include, but not necessarily be limited to, such variables as knowledge and skill (reading, writing, listening, conveying information to others, job knowledge); mental demands (judgment in decision making, analyzing and problem solving, responsibility and supervision over others); accountability (freedom to take action, impact of job on others and on the operation as a whole, and ability to carry out on a task); and working conditions (physical effort, environment and hazards).

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APPENDIX I

The committee stresses the importance of keeping the factor weights free from bias. The committee recommends that OPM make explicit the criteria for assigning numerical value to the job factors. Factor scores should be described accurately and concretely.

Following the assignment of numerical values to job factors, the OPM should rate the sample jobs in relationship to the valued factors to determine the jobs' hierarchical order. The results of the hierachical ranking of positions as compared to the analysis of wage determination using the present evaluation techniques will indicate whether the Federal Government's pay and classification systems are biased in favor of traditionally male-dominated occupations.

***

APPENDIX I

PATRICIA SCHROEDER
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ARMED SERVICES COMMITTEE
POST OFFICE AND CIVIL SERVICE COMMITTEE

Congress of the United States
House of Representatives
Washington, D.C. 20515

November 20, 1984

Honorable Charles A. Bowsher
Comptroller General
General Accounting Office
Washington, DC 20548

Dear Mr. Comptroller General:

On November 15, 1984, several members of the House and Senate requested that you prepare a report on the appropriate scope and methodology for a pay equity analysis of federal classification and compensation practices. As you know, we along with Chairwoman Oakar requested work on this subject from GAO -- work which is on-going. Therefore, we would like to be listed as co-requesters of this study as well.

Please keep us informed of developments in the preparation of this report.

With kind regards,

Sincerely,

PATRICIA SCHROEDER
Chairwoman
Subcommittee on Civil Service

GERALDINE FERRARO
Member of Congress

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APPENDIX I

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JOHN M SPRATT JR S C
JOE KOLTER PA
BEN ERDREICH ALA

JOHN R MCKERNAN JR MAINE
DAN BURTON IND
DAN SCHAEFER COLO

225-6751

NINETY-EIGHTH CONGRESS

Congress of the United States

House of Representatives

MANPOWER AND HOUSING SUBCOMMITTEE
OF THE
COMMITTEE ON GOVERNMENT OPERATIONS
RAYBURN HOUSE OFFICE BUILDING, ROOM B-349-A
WASHINGTON, D.C. 20515

November 29, 1984

Mr. Charles Bowsher
Comptroller General
U.S. General Accounting Office
440 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

In view of the Manpower and Housing Subcommittee's oversight responsibilities for the Office of Personnel Management, I have a deep interest in the progress and outcome of the current GAO study of comparable worth or pay equity issues in the Federal workforce. Therefore, I will appreciate your sending copies of interim materials or progress reports to the Subcommittee office. Please include Joy Simonson of the Subcommittee staff in any briefings on your study which may be held for Congressional staff. She may be reached at 225-6751.

Thank you for your cooperation.

Barney Frank

BARNEY FRANK
Chairman

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APPENDIX II

PAY EQUITY STUDIES AND RELATED ACTIVITIES IN THE STATES

Introduction

This appendix and the corresponding map (see page 3) summarize states' actions and initiatives with regard to pay equity. The data have been compiled from a variety of sources and categorize state initiatives in five main areas.[1] For each area the range of activities is described and examples of selected initiatives are given.

(1) No Formal Study Initiated

This category includes those states which have not undertaken a formal study or analysis of occupational segregation, sex-based wage disparities, or pay equity within their pay and classification systems. It should be noted, however, that despite the lack of formal study many of these states have conducted information-gathering activities (e.g. hearings, study commissions, research projects) designed to collect data which defines the issues, identifies pay equity initiatives, and/or assesses the ramifications of adopting quantitative job evaluation systems and establishing pay policies based on job content. These information-gathering activities have been initiated and conducted by commissions on the status of women, personnel departments, human relations commissions, and state legislatures. Their primary purpose has been to identify and educate involved parties on the social, economic, and legal issues of pay equity.

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[1]The sources listed below sometimes disagree on actions by particular states and many classify the same action differently. In addition, many actions are currently underway. Consequently, this appendix and the accompanying map should serve only as one indicator of national trends.

Sources: "Who's Working for Working Women?", Comparable Worth Project, National Committee on Pay Equity and National Woman's Political Caucus, 1984; "Pay Equity and Comparable Worth", Bureau of National Affairs Special Report, 1984; "Comparable Worth: The Problem and the State's Approaches to Wage Equity", Industrial Relations Center, University of Hawaii, 1983; "Comparable Worth in State Governments", Council of State Governments, 1984; data compiled by Alice H. Cook (unpublished); "Status and Implications of Comparable Worth", Commonwealth of Virginia, 1985; telephone survey of selected states.

Mississippi, Nevada, South Carolina, and Virginia are examples of states included in this category. Mississippi is currently surveying the salient issues. South Carolina's Department of Personnel is developing a position paper which will review other states' activities in the pay equity area. A January 1985 report to the Nevada legislature surveyed the issues, methodologies, employee demographics, and the potential costs and effects of pay equity on their classification system. The Commonwealth of Virginia recently issued a report which identifies changes and costs which might be included in its job evaluation and classification system should it adopt the concept of pay equity at some future time.

(2) Preliminary Study Ongoing/Completed

This category includes those states which have documented the extent of occupational segregation and sex-based wage disparities in their state civil service systems. These studies have often been initiated at the request of employee unions and are commonly conducted to determine whether, and if so, the extent to which a wage gap exists. Like the more general information-gathering efforts in the first category, these studies have been conducted by commissions on the status of women, labor departments, personnel departments, human relations commissions, and state legislatures.

Indiana and Kentucky are among the states which have undertaken such studies. In Indiana, a task force appointed by the Governor recently completed a study of the state's compensation program. Occupational segregation and sex-based wage disparities were one of nine issues addressed in their report. In Kentucky, the Legislative Research Commission issued a report in 1983 which specifically investigated sex-based wage differentials, occupational segregation, and whether male and female employees receive equal pay for equal work in the state civil service system.

(3) Pay Equity Study Ongoing/Completed

This category includes those states which have undertaken job evaluation studies which compare the relative earnings for comparably valued male- and female-dominated jobs. Pay equity studies conducted in the states have been initiated through collective bargaining, legislation, executive order, budget appropriation, and civil service department action. These studies, ranging from small pilot studies to more comprehensive studies, generally follow the steps outlined in chapter 3 (see page 39). They are typically directed by joint committees consisting of representatives of affected parties (e.g. employees, advocacy groups, unions, management, etc.) which perform in an advisory capacity to consultants who provide technical expertise in

carrying out the study. Examples of states which have completed or are currently undergoing pay equity studies are provided in the body of the report (see pages 33 and 35).

(4) Pay Equity Study Results Being Implemented

This category includes those states currently in the process of implementing the results of pay equity studies. Pay equity programs have been implemented in various states primarily to remedy sex-based wage differentials thought to be perpetuated by pay-setting practices which rely on the external labor market for establishing pay rates. Implementation has occurred through the collective bargaining process, negotiation, or enabling legislation. The experiences of the states of Washington, Connecticut, and Minnesota, as well as the cities of Colorado Springs, Colorado, and San Jose, California, in implementing pay equity study results are reviewed in the body of the report (see pages 36 to 39).

New Mexico is depicted as falling within this category on the map which appears on page 3. However, their situation is unique, in that, implementation of equity pay was initiated prior to the conduct of a study. In 1983 New Mexico appropriated $3.2 million for pay equity adjustments and elevated the salary ranges of 23 low-paid, female dominated jobs based on data from a 1980 review of their pay and classification system. New Mexico is currently developing a point factor system with the goal of decreasing pay disparities between equally valued jobs.

(5) Classification System Reform Meeting Pay Equity Criteria

This category includes those states which have initiated or completed revisions to their pay and classification system which, in effect, achieve pay equity criteria. Classification system reform is often initiated by the state personnel agency in an attempt to update its old classification system. These studies have been carried out by the state personnel department, frequently under the direction of private consultants. Revisions have entailed adopting a quantitative job evaluation system and implementing wage adjustments based on measured job content.

Idaho provides an example of a state which falls within this category. In Idaho, the Hay point-factor evaluation system was chosen to help establish an internally equitable and externally competitive salary plan. The principal objective of the study was to improve the operation of the pay and classification system, not to achieve pay equity. However, the system uses one set of evaluation criteria and one pay plan to encompass all jobs held by classified employees. Jobs equally evaluated are

equally paid. Louisiana is another state which has reformed its classification system without a pay equity study. A Pay Advisory Council appointed by the Civil Service Director and a private consulting firm developed a point-factor system of job evaluation and a new pay structure to address problems of internal equity. Again, the system calls for universal criteria and one pay plan for all classified jobs. Implementation of Louisiana's new classification and compensation system, which emphasizes quantitative measurement of job content and relies on measured job worth as the pay-setting mechanism, will also address the pay equity issue, although this was not stated as a motive for undertaking the study.

APPENDIX III

LEGAL BACKGROUND

I. Relevant Legislation and Executive Orders

- A. Equal Pay Act of 1963
- B. Civil Rights Act of 1964
- C. Civil Service Reform Act of 1978
- D. Executive Order 11478, as amended

II. Relevant Cases

- A. Pay-Inequality Cases Involving the Federal Government
- B. Significant "Title VII" Cases
  - (1) Cases Preceding County of Washington v. Gunther
  - (2) County of Washington v. Gunther
  - (3) Post-Gunther cases
  - (4) Recent Cases: AFSCME v. State of Washington and Spaulding v. University of Washington
  - (5) Pending Litigation

III. Specific Considerations Affecting Pay-Equity Studies

- A. Legal Implications of Conducting a Pay-Equity Study
- B. Judicial Consideration of Pay-Equity Studies
  - (1) Job Evaluation
  - (2) Statistical Studies

I. Relevant Legislation and Executive Orders

A. Equal Pay Act of 1963.

The Equal Pay Act, 29 U.S.C. § 206(d), is contained in the Fair Labor Standards Act and provides as follows:

> "No employer having employees subject to any provisions of this section shall discriminate, within any establishment in which such employees are employed, between employees on the basis of sex by paying wages to employees in such establishment at a rate less than the rate at which he pays wages to employees of the opposite sex in such establishment for equal work on jobs the performance of which requires equal skill, effort, and responsibility, and which are performed under similar working conditions, except where such payment is made pursuant to (i) a seniority system; (ii) a merit system; (iii) a system which measures earnings by quantity or quality of production; or (iv) a differential based on any other factor other than sex: Provided, that an employer who is paying a wage rate differential in violation of this subsection shall not, in order to comply with the provisions of this subsection, reduce the wage rate of any employee."

Essentially, the Equal Pay Act prohibits unequal pay for equal or "substantially equal" work performed by men and women, unless an employer justifies the pay differential under one of the act's four affirmative defenses. The concept of "substantial equality" was developed by the courts. See Shultz v. Wheaton Glass Co., 421 F.2d 259 (3rd Cir. 1970), cert. denied, 398 U.S. 905 (1970); and Brennan v. Prince William Hospital Corp., 503 F.2d 282 (4th Cir. 1974), cert. denied, 420 U.S. 972 (1975).

B. Civil Rights Act of 1964 and the Bennett Amendment

Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000a-h, was enacted 1 year after the Equal Pay Act. The relevant part of Title VII prohibits discrimination in employment on the basis of race, color, national origin, religion, and sex. 42 U.S.C. § 2000e-2(a).

The so-called "Bennett Amendment" to Title VII, 42 U.S.C. § 2000e-2(h), provides that it shall not be an unlawful employment practice for an employer to compensate employees differently on the basis of sex if such differentiation is "authorized" by the Equal Pay Act. As is discussed more fully below, the Bennett Amendment's use of the term "authorized" generated

controversy in the federal courts. Some courts narrowly interpreted the term to mean that the only sex-based wage discrimination claims cognizable under Title VII were those that could also be brought under the Equal Pay Act, thus limiting Title VII claimants to an "equal work" standard. Other courts adopted a broader interpretation, holding that the Bennett Amendment merely incorporates into Title VII the Equal Pay Act's four affirmative defenses. The Supreme Court resolved this issue by adopting the latter interpretation in County of Washington v. Gunther, 452 U.S. 161 (1981).

C. Civil Service Reform Act of 1978

The Civil Service Reform Act of 1978, Public Law 95-454, established a number of "merit system principles" for federal personnel management. The relevant principles, codified in 5 U.S.C. §§ 2301(b)(2) and (3), provide that:

> "(2) All employees and applicants for employment should receive fair and equitable treatment in all aspects of personnel management without regard to political affiliation, race, color, religion, national origin, sex, marital status, age, or handicapping condition, and with proper regard for their privacy and constitutional rights.
>
> "(3) Equal pay should be provided for work of equal value * * *."

D. Executive Order No. 11478, as amended

Executive Order No. 11478, 34 Fed. Reg. 12,985 (1969), assures equal employment opportunity in the federal government. The relevant part of the order provides that:

> "It is the policy of the Government of the United States to provide equal opportunity in Federal employment for all persons, to prohibit discrimination in employment because of * * * sex * * * and to promote the full realization of equal employment opportunity through a continuing affirmative program in each executive department and agency. This policy of equal opportunity applies to and must be an integral part of every aspect of personnel policy and practice in the employment, development, advancement, and treatment of civilian employees of the Federal Government."

Executive Order No. 11478 was amended by Executive Order No. 11590, 36 Fed. Reg. 7,833 (1971), to extend the mandate for equal employment opportunity to the Postal Service and the Postal Rate Commission.

II. Relevant Cases

A. Pay-Inequality Cases Involving the Federal Government

In 1972, Title VII was amended to permit federal employees to file discrimination suits against the government. 42 U.S.C. § 2000e-16(a). In 1974, the definition of "employer" in the Fair Labor Standards Act, containing the Equal Pay Act, was expanded to include public agencies. 29 U.S.C. § 203(d). Because of these legislative developments, federal employees alleging sex-based wage discrimination may commence legal actions under both Title VII and the Equal Pay Act.

Although the government has not been the subject of any "landmark" pay-equity litigation under Title VII, the cases discussed below indicate that female employees have invoked the Equal Pay Act to challenge agencies' pay and classification practices. In Cayce, Epstein, Grayboff, and Grumbine, cited below, female employees classified under the General Schedule alleged that they were under-graded in comparison with men who performed the same work. The district court in Cayce held that a grade disparity may be justified by the government's facially neutral classification system, but only if the system is applied in a sex-blind manner. Epstein stands for the proposition that an Equal Pay Act analysis is not limited to a comparison of position descriptions, but must focus on actual job content. In Grumbine, the district court held that a federal agency may not assign a woman to a grade lower than a man performing equivalent duties simply because she works in a different part of the country. Grayboff held that the government may not justify a grade disparity by asserting that the female employee was willing to accept a lower salary.

Thompson, cited below, involved an Equal Pay Act challenge to the Government Printing Office's administratively-controlled pay system. Citing pervasive sex discrimination in the printing industry, female bindery workers successfully challenged the agency's practice of paying them less than male bookbinders for substantially equal work.

Synopses of the relevant cases follow.

Cayce v. Adams, 439 F. Supp. 606 (D.D.C. 1977).

The plaintiff in Cayce , a grade GS-8 statistical assistant employed by the Federal Aviation Administration (FAA), alleged that she was performing work substantially equal to a man in grade GS-11. She contended that the FAA's failure to promote her to grade GS-11 constituted a violation of the Equal Pay Act.

The district court found that the plaintiff and her male counterpart were performing substantially equal work within the

contemplation of the Equal Pay Act. Then, turning to the Equal Pay Act's four affirmative defenses, the court found that the fourth exemption for a "factor other than sex" would include a "bona fide classification system." Applying this exemption, the court concluded that the government's classification system for General Schedule employees is facially bona fide because it is intended to "operate fairly and and evenly, treating all employees alike." 439 F. Supp. at 608.

Despite the facial neutrality of the government's classification system, the court went on to state that the system would be exempt from the Equal Pay Act only if it is applied by supervisors and classifiers in a sex-blind manner. Analyzing the facts in Cayce, the court found that the FAA failed to apply the classification system in a bona fide manner because it knew that the male employee was overgraded and nevertheless failed to downgrade him.

Epstein v. Secretary, United States Department of the Treasury, 34 Empl. Prac. Dec. (CCH) § 34,541 (7th Cir. July 17, 1984).

In Epstein, the Seventh Circuit held that the Bureau of Alcohol, Tobacco and Firearms (BATF) did not violate the Equal Pay Act when it decided to upgrade a male employee while refusing to reclassify a female employee who allegedly performed similar work. While the court acknowledged that the male and female employees' job descriptions were almost identical, it stated that the Equal Pay Act requires an evaluation of duties actually performed by employees. After analyzing the employees' duties, the court found that the jobs were not substantially similar because the male employee had been delegated more independent decisionmaking authority than the female.

Grumbine v. United States, 586 F. Supp. 1144 (D.D.C. 1984).

Grumbine involved an Equal Pay Act claim filed by a grade GS-14 regional counsel of the U.S. Customs Service. The plaintiff alleged that her duties and responsibilities were substantially the same as those performed by her immediate predecessor and eight other regional counsels, all male, who were classified in grade GS-15.

The government defended the suit on the ground that each of Customs' regional offices represented a separate "establishment" within the meaning of the Equal Pay Act. On this basis, the government maintained that it was not required to pay the plaintiff at the same rate as the other regional counsels.

The district court rejected the government's argument, holding that a governmental "establishment" for purposes of the Equal Pay Act is the nationwide civil service system, unless good cause is shown for a geographical exception. On this

basis, the court stated that a comparison between the pay of male and female employees must be based on the civil service as a whole, and that a woman may not be paid less than a man with equivalent responsibilities simply because she works in a different location. Accordingly, the court concluded that the plaintiff could maintain a claim under the Equal Pay Act even though she was the only regional counsel at her duty site.

Grayboff v. Pendleton, 36 FEP Cases 350 (N.D. Ga. 1984).

The plaintiff in Grayboff was an equal employment specialist, grade GS-11, employed by the U.S. Civil Rights Commission. She alleged, and the court agreed, that her duties were substantially the same as those performed by male equal employment specialists who had been assigned to grade GS-13.

The government argued that the grade differential was justified because the plaintiff was willing to work at the grade GS-11 level, and her salary history was low compared to the men in grade GS-13. The court rejected the government's defense, stating that women have been willing to accept depressed pay rates, and have lower salary histories, "precisely because of sex discrimination." 36 FEP Cases at 356.

Thompson v. Sawyer, 678 F.2d 257 (D.C. Cir. 1982).

In Thompson, female bindery workers argued that the Government Printing Office (GPO) violated the Equal Pay Act by paying them less than male bookbinders who allegedly performed equal work. The court of appeals upheld the district court's determination that GPO had violated the Equal Pay Act, finding that some of the female bindery workers and male bookbinders performed substantially equal work even though they used different machines. The court then held that GPO could not justify the pay differential by referring to traditional industry practice as a "factor other than sex," because the bookbinding industry has had a pervasive history of sex-segregating jobs according to stereotypical "men's work" and "women's work." 678 F.2d at 265, 276, and 277.

B. Significant "Title VII" Cases

(1) Cases Preceding County of Washington v. Gunther

Before the Supreme Court's decision in County of Washington v. Gunther, 452 U.S. 161 (1981), courts expressed different opinions concerning the Bennett Amendment's provision that a sex-based wage differential would not violate Title VII if it is "authorized" by the Equal Pay Act. The district court in Lemons v. City & County of Denver, cited below, narrowly held that a claim of sex-based wage discrimination could not be brought under Title VII unless it satisfied the Equal Pay Act's "equal

work" standard. A broader interpretation, adopted in IUE v. Westinghouse Electric Corp., cited below, is that the Bennett Amendment merely incorporated into Title VII the Equal Pay Act's four affirmative defenses.

The cases discussed below illustrate the split of judicial opinion concerning the effect of the Bennett Amendment and also provide some early commentary on the concept of comparable worth and the viability of the "marketplace" defense in Title VII litigation.

Christensen v. State of Iowa, 563 F.2d 353 (8th Cir. 1977).

In Christensen, clerical workers challenged the University of Northern Iowa's practice of paying the exclusively female class of clerical workers less than the comparably-valued and predominantly-male class of physical plant workers. Based on a job evaluation conducted under the "Hayes System," the university had determined that the clerical and physical plant jobs were of equivalent value and it assigned these positions to the same labor grades. However, based on a survey of local market rates, the university established advanced pay steps for the physical plant employees and not for the clerical workers. The clerical workers maintained that the university had violated Title VII because its wage scales perpetuated sex discrimination inherent in the marketplace.

The court found that it was not required to address the effect of the Bennett Amendment because the plaintiffs had failed to state a cause of action under Title VII. Specifically, the court stated that nothing in Title VII requires an employer to, "ignore the market in setting wage rates for genuinely different work classifications." 563 F.2d at 356.

Lemons v. City & County of Denver, 17 FEP Cases 906 (D. Colo. 1978), affirmed, 620 F.2d 228 (10th Cir. 1980), cert. denied, 449 U.S. 888 (1980).

In Lemons, city-employed nurses challenged the city's pay and classification system which aligned nurses' wages with those paid to non-city nurses in the community. The nurses claimed that this pay practice incorporated historical discrimination against the female-dominated nursing profession, and that the city should have set the nurses' pay with reference to comparable jobs in its own classification system.

The district court ruled that the city's pay system did not violate Title VII. While the court presumed that the Bennett Amendment limited Title VII to claims of substantially equal work, it specifically held that Title VII does not prohibit an employer from setting wages based on market factors. Thus,

although the court recognized that depressed wages in the nursing profession may reflect historical discrimination, it stated that Title VII was not intended to "roll aside all history" or to require an employer to pay wages based on an assessment of job worth. 17 FEP Cases at 908, 909.

Fitzgerald v. Sirloin Stockade, Inc., 624 F.2d 945 (10th Cir. 1980).

In Fitzgerald, the Tenth Circuit affirmed a district court decision finding Title VII liability where an employer failed to increase the salary of a female employee when she took over most of the duties of a male advertising director but did not qualify for the title of advertising director. The court rejected the employer's argument that claims under Title VII are restricted by the Equal Pay Act's "equal work" standard, stating that Title VII affords a broader remedy for sex-based wage discrimination.

IUE v. Westinghouse Electric Corp., 631 F.2d 1094 (3d Cir. 1980).

The plaintiffs in Westinghouse alleged that, in the late 1930s, the company had "point-rated" jobs according to the responsibilities involved and the training and knowledge required. Then, the company set wage rates for female-dominated jobs lower than rates for male-dominated jobs with the same point rating. Although Westinghouse altered its classification system in 1965 to eliminate sexual job designations, the plaintiffs claimed that the company maintained the discriminatory wage structure established under its prior plan.

The Third Circuit held that the facts alleged by the plaintiffs, if proven, would constitute intentional sex discrimination in violation of Title VII. As the basis for this holding, the court found that the Bennett Amendment does not limit Title VII claims to those alleging equal work.

Gerlach v. Michigan Bell Tel. Co., 501 F. Supp. 1300 (E.D. Mich. 1980).

In Gerlach, female engineering layout clerks classified as clerical workers alleged that they were being paid less than the predominantly male class of field assistants even though their work was of comparable value to the company. The court ruled that the plaintiffs could maintain a claim under Title VII without meeting the Equal Pay Act's "equal work" standard. However, the court refused to permit as a theory of liability the plaintiff's claim that their work was undervalued in comparison with the men's work, because they did not allege that the undervaluation resulted from intentional sex discrimination. The court stated that a claim grounded solely on comparable worth is not cognizable under Title VII because, "such an allegation is by

necessity based on subjective evaluations of comparability among jobs." 501 F. Supp. at 1321.

(2) County of Washington v. Gunther, 452 U.S. 161 (1981).

Gunther involved a Title VII action filed by four female prison guards who claimed that the county paid them lower wages than male prison guards, and that part of the pay differential was attributable to intentional sex discrimination. Specifically, the plaintiffs alleged that the county had conducted a job evaluation showing that the female guards' services were worth approximately 95 percent of the male guards' services, but that it paid female guards only 70 percent of what the male guards earned. The district court dismissed the complaint, finding no violation of the Equal Pay Act because the women and men performed different duties: the female guards supervised one-tenth as many prisoners as the male guards, and they performed some clerical work. Further, the district court determined that satisfaction of the Equal Pay Act's requirements was a prerequisite to recovery under Title VII for sex-based wage discrimination. The Ninth Circuit reversed, holding that the Bennett Amendment did not limit Title VII's prohibition against sex-based wage discrimination to claims of unequal pay for equal work.

The Supreme Court affirmed the Ninth Circuit's ruling, but emphasized at the outset that the Gunther facts did not require it to address the "controversial concept of 'comparable worth'." 452 U.S. at 166. Also, the Court noted that the suit did not require a court to "make its own subjective assessment of the value of the male and female guard jobs, or to attempt by statistical technique or other method to quantify the effect of sex discrimination on the wage rates." 452 U.S. at 181. Rather, the Court stated, the female guards were seeking to prove "by direct evidence" that their wages were depressed because of intentional sex discrimination. 452 U.S. at 166. The Court held that this claim was cognizable under Title VII even though it did not involve unequal pay for equal work, finding that the purpose of the Bennett Amendment was merely to incorporate the Equal Pay Act's four affirmative defenses into Title VII. However, the Court declined to define the scope of Title VII for purposes of future litigation involving sex-based wage discrimination. 452 U.S. at 181.

(3) Post-Gunther Cases

Courts deciding wage-inequality cases in the wake of Gunther expressed different opinions concerning the reach of Title VII. While it is difficult to identify a common theme among the cases discussed below, it appears that courts have expressed a preference for findings of intentional discrimination and have rejected claims based solely on the theory

of comparable worth. For example, in Power v. Barry County and Plemer v. Parsons-Gilbane, cited below, the courts declined to find discrimination based on a plaintiff's empirical comparison of dissimilar jobs, stating that such claims would require a court to independently assess the worth of the jobs in question. On the other hand, some commentators have suggested that Taylor v. Charley Brothers and Briggs v. City of Madison, cited below, implicitly endorse the concept of comparable worth. BUREAU OF NATIONAL AFFAIRS, PAY EQUITY AND COMPARABLE WORTH 17 (1984). In both Taylor and Briggs, the courts found that observed similarities between female and male job classifications permitted an inference that the jobs were of comparable value to the employer.

Another significant feature of the cases discussed below is the courts' treatment of the "marketplace" defense in Title VII litigation. In Briggs v. City of Madison, the court held that an employer may rebut a presumption that a wage disparity resulted from intentional discrimination by showing that the male-dominated job commanded a higher pay rate in the local market. On the other hand, the district court in Kouba v. Allstate Insurance Co., cited below, stated that the market rate is not a "factor other than sex" which would justify a pay differential for equal work performed by men and women.

Synopses of relevant cases follow.

Boyd v. Madison County Mut. Ins. Co., 653 F.2d 1173 (7th Cir. 1981).

In Boyd, a male supervisor was excluded from an "attendance bonus" plan available only to an all-female class of clerical workers. Invoking Title VII, the supervisor argued that the company had discriminated against him on the basis of sex by offering the bonus only to female employees. The company argued that Title VII did not apply to the supervisor's claim because his work was different from that performed by clerical employees.

The Seventh Circuit applied County of Washington v. Gunther to hold that the supervisor had a cause of action under Title VII even though he did not perform work substantially equal to that of the female employees. However, the court decided to dismiss the suit because the company demonstrated a legitimate, nondiscriminatory reason for offering the attendance bonus only to its female clerical workers.

Taylor v. Charley Bros. Co., 25 FEP Cases 602 (W.D. Pa. 1981).

In Taylor, the District Court for the Western District of Pennsylvania found that a grocery wholesaler had violated Title VII by paying its female employees less than male employees

simply because they worked in an all-female department, and not because their work was less valuable. Although some of the male and female jobs the court examined were not substantially equal, the court nevertheless found comparability in that they were all characteristic of laborer's work, requiring little skill, education, or experience. 25 FEP Cases at 611.

The district court inferred Charley Brothers' intent to discriminate from several different factors: the company had not, prior to trial, undertaken a job evaluation; the company exhibited a pattern and practice of segregating women within a single department; the company exhibited a pattern and practice of considering female job applicants only for that department; and company officials had made a number of discriminatory statements. 25 FEP Cases at 614.

Kouba v. Allstate Ins. Co., 523 F. Supp. 148 (E.D. Cal. 1981), reversed and remanded, 691 F.2d 873 (9th Cir. 1982).

Kouba involved a Title VII challenge to an insurance company's practice of paying new sales agents a "monthly minimum" salary based in part on their prior earnings. The female plaintiffs argued that, since women's wages were historically depressed, the company's practice of basing wages on prior earnings operated to "freeze" the status quo.

The district court found the company liable under Title VII because it paid women less than men for equal work, and because it failed to sustain its burden of proving that the wage differential was justified by a "factor other than sex," the Equal Pay Act's forth affirmative defense. The court rejected the employer's argument that prior earnings constituted a legitimate factor based on the market rate, stating that, "[a] resort to the so-called 'market rate' where the market rate is itself a reflection of historical discrimination will not be considered as a sufficient justification under the Equal Pay Act." 523 F. Supp. at 161. The court ruled that the company could not continue its pay-setting practice unless it could demonstrate that it had assessed the previous salaries and determined that they were based on factors other than sex, such as job responsibilities and hours of work. 523 F. Supp. at 162.

The appeals court reversed and remanded the case, ruling that the Equal Pay Act does not impose a strict prohibition against the use of prior salaries in setting wages. The court stated that an employer may defend its reliance on previous earnings by demonstrating an "acceptable business reason" for the wage-setting practice. 691 F.2d at 876.

After remand, the Kouba case was settled out of court. Reportedly, the insurance company agreed to change its pay-setting method and to set up a trust fund for the affected female employees.

Power v. Barry County, 539 F. Supp. 721 (W.D. Mich. 1982).

The six plaintiffs in Power served as matrons for county prisoners and also performed duties as dispatchers. They maintained that the county had violated Title VII by paying them less than an all-male staff of "correction officers" who supervised jail inmates and allegedly performed work of comparable value. The county moved to dismiss the suit, arguing that a "mere claim of unequal pay for comparable work does not state a valid claim under either Title VII or the Equal Pay Act." 539 F. Supp. at 722.

The district court dismissed the suit, finding that Title VII was not intended to recognize claims based on a theory of comparable worth or to require a court to independently assess the relative worth of two dissimilar jobs. As part of its determination, the court reviewed major cases decided under Title VII and characterized those cases as either adopting the "Gunther intentional discrimination theory" or employing a more traditional Title VII analysis, but not recognizing a theory of comparable worth. The court then examined the legislative history of Title VII, concluding that:

> "[T]he Supreme Court's recognition of intentional discrimination may well signal the outer limit of the legal theories cognizable under Title VII. There is no indication in Title VII's legislative history that the boundaries of the Act can be expanded to encompass the theory of comparable worth. Nor is there convincing evidence that Congress intended to make such a theory available to those seeking redress for real or imaginary wage inequalities. Nothing in the legislative history indicates support for an independent claim of recovery where the outcome of the case is dependent upon a court's evaluation of the relative worth of two distinct jobs." 539 F. Supp. at 726.

Connecticut State Employees Ass'n v. State of Connecticut, 31 FEP Cases 191 (D. Conn. 1983).

The plaintiff in this case alleged that the State of Connecticut violated Title VII by paying clerical workers less than employees in male-dominated jobs which it had determined to be of comparable value. The state moved to dismiss the plaintiff's complaint, maintaining that it was based exclusively on the concept of comparable worth.

Responding to the state's motion, the district court agreed that a "pure" comparable worth claim would not be actionable under Title VII. However, the court found that the plaintiff's complaint alleged intentional sex discrimination, based on the

state's failure to pay salaries commensurate with evaluated job worth, and it allowed the suit to proceed on that basis.

Briggs v. City of Madison, 536 F. Supp. 435 (W.D. Wisc. 1982)

In Briggs, female public health nurses alleged that the city violated Title VII by paying them only 85 percent of what male public health sanitarians earned, even though the two jobs required equivalent qualifications, skill, effort, and responsibility. The nurses contended that much of the pay disparity could be traced to the historical devaluation of jobs performed primarily by women.

The district court ruled that the payment of different wages to sex-segregated job classifications will not, in itself, establish a presumption of intentional discrimination. In this regard, the court stated that the remedial purpose of Title VII "is not so broad as to make employers liable for employment practices of others or for existing market conditions." 536 F. Supp. at 445. However, the court found that the plaintiffs established a rebuttable presumption of intentional discrimination because they presented an additional element: the sex-segregated job classifications at issue were so similar in terms of skill, effort, and responsibility that "it can reasonably be inferred that they are of comparable value to an employer." 536 F. Supp. at 445.

The court then ruled that an employer may rebut a presumption of wage discrimination with respect to two similar, but not identical, jobs by showing that the male-dominated job commands a higher wage rate in the local market. On this basis, the court held that the city justified the 15 percent wage differential between public health nurses and sanitarians by showing that, without the differential, it could not recruit or retain sanitarians. 536 F. Supp. at 447.

Plemer v. Parsons-Gilbane, 713 F.2d 1127 (5th Cir. 1983).

In Plemer, a female EEO Representative claimed that her duties overlapped those of an EEO Officer, and that the $8,700 disparity between their salaries was attributable to sex and not justified by a dissimilarity between job responsibilities. The Fifth Circuit rejected the plaintiff's Title VII claim, characterizing the claim as one which would require a court to "make an essentially subjective assessment of the value of the differing duties and responsibilities of the [two] positions * * * and then determine whether [the woman] was paid less than the value of her position because she was female." 713 F.2d at 1134. The court distinguished County of Washington v. Gunther, stating that the Supreme Court's decision concerned direct evidence of intentional discrimination. In this regard, the court noted that the plaintiff would have presented a cognizable claim if

she had shown that the company had evaluated the worth of the overlapping jobs, and then paid the man the full value of his evaluated worth while paying the plaintiff less than hers. 713 F.2d at 1134.

(4) Recent Cases

AFSCME v. State of Washington, 578 F. Supp. 846 (W.D. Wash. 1983).

Background: In 1974, Washington State commissioned Norman Willis and Associates to study its market-based compensation system. The objective of the study was to identify and examine pay differentials between predominantly-male and predominantly-female job classifications based on an evaluation of job worth.

The 1974 study evaluated 121 job classifications, including 59 predominantly-male classifications and 62 predominantly-female classifications. The term "predominantly" was defined as 70 percent dominance by one sex. The jobs were assessed according to four factors: (1) knowledge and skills, (2) mental demands, (3) accountability, and (4) working conditions. Then, each job was assigned a point value based on evaluated job content.

The results of the 1974 study suggested that, on the average, female-dominated jobs were paid 20 percent less than male-dominated jobs with the same point value. However, for various reasons over the years, the state legislature did not authorize implementation of a remedial pay plan. Consequently, AFSCME filed suit in Federal district court, charging that the state violated Title VII by failing to correct the wage disparities revealed by its own study. In 1983, after the suit was filed, the state legislature passed two "comparable worth" laws purporting to eliminate wage inequities over a 10-year implementation period.

Decision: In its AFSCME decision, the district court explained that the case was one of "first impression insofar as it concerns the implementation of a comparable worth compensation system." However, the court stated that the case could be characterized more accurately as a "straightforward 'failure to pay' case," closely analogous to County of Washington v. Gunther, because the state had failed to correct acknowledged pay disparities between predominantly-female and predominantly-male job classifications. 578 F. Supp. at 865.

The court found that the plaintiffs had established a Title VII claim under the "disparate impact" doctrine, which holds an employer liable for practices which are neutral in form but adversely affect a protected group. Specifically, the court determined that the state's compensation system had an adverse

impact on women, and that the state failed to demonstrate a "legitimate and overriding business consideration" justifying the discrimination. 578 F. Supp. at 864.

The court then found that the state had intentionally discriminated against employees in predominantly-female job classifications. The court stated that discriminatory intent was established by the following factors:

> "(a) [T]he deliberate perpetuation of an approximate 20 % disparity in salaries between predominantly male and predominantly female job classifications with the same number of job evaluation points; (b) other statistical evidence including the inverse correlation between the percentage of women in a classification and the salary for the classification; (c) application of subjective standards which have a disparate impact on predominantly female jobs; (d) admissions by present and former State officials that wages paid to employees in predominantly female jobs are discriminatory; and, (e) the Defendant's failure to pay the Plaintiffs their evaluated worth as established by the Defendants." 578 F. Supp. at 864.

Once it found liability, the court ordered the state to: (1) cease its discriminatory compensation practices; (2) pay the plaintiffs amounts of compensation determined under the states "'comparable worth' plan as adopted in May 1983," and (3) conduct additional class evaluations. See AFSCME v. State of Washington, No. C82-465T (W.D. Wash. Dec. 14, 1983) (order granting injunction). In order to enforce this prospective injunctive relief, the court appointed a special master to oversee the state's compliance efforts. Additionally, the court ordered the state to pay backpay and fringe benefits to the affected employees. 578 F. Supp. at 871.

The state opposed the court's award of injunctive relief and backpay, arguing that the award would involve "tremendous costs" and that the state had already initiated a legislative remedy. The court, however, stated that Title VII does not contain a cost-justification defense. 578 F. Supp. at 867. Also, the court found that the state's 10-year implementation plan, if adopted as the injunctive remedy, would work a grave injustice to the plaintiffs because "Title VII remedies are now." 578 F. Supp. at 868 (emphasis in original). Finally, the court found that the state had acted in bad faith because it was "on notice of the legal implications of conducting comparable worth studies without implementing a salary structure commensurate with the evaluated worth of jobs.' 578 F. Supp. at 870.

Pending Appeal: Washington State has appealed the district court's decision in AFSCME to the U.S. Court of Appeals for the

Ninth Circuit. Primarily, the state is contending that: (1) the district court improperly permitted AFSCME to prevail solely on the basis of the state's comparable worth study, without further proof that the wage differentials between male and female workers resulted from intentional sex discrimination; and (2) the district court's application of a disparate impact analysis was improper, in view of the Ninth Circuit's recent decision in Spaulding v. Univ. of Washington, discussed below. See 22 GOV'T EMPL. REL. REP. (BNA) 1866 (October 1, 1984).

Spaulding v. Univ. of Washington, 740 F.2d 686 (9th Cir. 1984), cert. denied, 53 U.S.L.W. 3403 (U.S. Nov. 26, 1984) (No. 84-515).

Decision: In Spaulding, members of the university's predominantly-female nursing faculty alleged that they were being underpaid in comparison with male faculty members in related departments, such as health services and social work. The district court, adopting the findings of a special master, rejected the plaintiffs' claims under the Equal Pay Act and Title VII. 35 FEP Cases 168 (W.D. Wash. 1981).

The Ninth Circuit affirmed the district court's ruling under the Equal Pay Act, determining that the jobs in question were not substantially equal. Then, the court found that the nursing faculty had not established Title VII liability under either the intentional discrimination or disparate impact doctrines. With respect to the plaintiffs' claim of intentional discrimination, the court stated that a demonstrated wage differential between jobs that are "only similar" will not, in itself, support an inference of discrimination. Further, the court rejected the plaintiff's suggestion that it apply a "comparability plus" test, under which the requirement for direct and circumstantial evidence of discriminatory conduct would vary in inverse proportion to the degree of comparability between the positions in question. 740 F.2d at 701.

The court examined the nursing faculty's evidence of intentional discrimination and concluded that the evidence was insufficient to state a cause of action under Title VII. Specifically, the court declined to infer discriminatory intent from the university's allegedly uncooperative response to the discrimination charges, the all-male composition of the university's budget committee, the nursing school's use of the lower-paid instructor rank to hire inexperienced faculty, or the "demeaning attitude" exhibited by a university administrator. 740 F.2d at 701, 702. Additionally, the court found that comparative statistics introduced by the nursing faculty were unreliable because: (1) the statistician used a simple matching technique rather than a regression model; (2) the selection of comparable faculty in other departments "unrealistically assumed the equality of all master's degrees, ignored job experience prior

to University employment and ignored detailed analysis of day-to-day responsibilities" and; (3) the statistics did not compare female nursing wages to the wages of female faculty in other departments. 740 F.2d at 704. Since the court found that the plaintiffs had not established a prima facie case of intentional discrimination, it declined to decide whether the university's reliance on market forces would constitute a defense under Title VII. 740 F.2d at 699 n. 7.

The court then rejected the plaintiff's contention that the university's reliance on the market qualified as a facially neutral policy having an adverse impact on women. The court explained that "[e]very employer constrained by market forces must consider market values in setting his labor costs." 740 F.2d at 708.

Appeal: On November 26, 1984, the Supreme Court denied the nursing faculty's petition for certiorari, thereby declining to review the Ninth Circuit's decision in Spaulding. 53 U.S.L.W. 3403 (No. 84-515).

(5) Pending Litigation

As noted previously, Washington State's appeal from AFSCME v. State of Washington is pending before the Court of Appeals for the Ninth Circuit. Other pending lawsuits, filed within the past year, are described below.

AFSCME v. County of Nassau, No. 84-1730 (E.L.N.Y. filed April 23, 1984).

In April 1984, AFSCME and ten individual plaintiffs filed a pay-equity action against Nassau County, New York, in the U.S. District Court for the Eastern District of New York. Based on its own survey of county jobs, AFSCME is alleging that the county has systematically discriminated against women by paying traditional female jobs less than traditional male jobs which require an equivalent or lesser degree of skill, effort, and responsibility. Also, the union is charging that the county's maintenance of sex-segregated job classifications violates Title VII and the Equal Pay Act.

The individual claims allege discriminatory treatment of the following job classifications: registered nurse, assistant detective investigative aide, sanitarian trainee, domestic worker, social services caseworker, social welfare examiner, teletype operator, and food service worker. See 22 GOV'T EMPL. REL. REP. (BNA) 848 (April 30, 1984).

American Nurses Association v. State of Illinois, No. 84C-4451 (N.D. Ill. filed May 24, 1984).

In May 1984, the American Nurses Association and its local affiliate, the Illinois Nurses Association, filed a lawsuit in federal district court on behalf of nurses and other female employees of the State of Illinois. According to the plaintiffs, a state-commissioned study performed by Hay Associates showed that the state pays less for predominantly-female jobs than for predominantly-male jobs, even though the female jobs require equal or greater degrees of know-how, problem-solving, and accountability. The complaint charges that the state's failure to remedy the disclosed pay differentials constitutes a violation of Title VII. See 22 GOV'T EMPL. REL. REP. (BNA) 71, 72 (Jan. 9 1984); and 22 GOV'T EMPL. REL. REP. (BNA) 1082 (June 4, 1984).

AFSCME v. City of New York, No. 84-4529 (S.D.N.Y. filed June 27, 1984).

In June 1984, AFSCME filed a Title VII action against New York City, alleging that the city unlawfully pays the female and minority-dominated positions of Police Communications Technicians and Supervisory Police Communications Technicians less than the male-dominated positions of Fire Alarm Dispatchers and Supervisory Fire Alarm Dispatchers. According to AFSCME, the communications technicians' duties are substantially equal to those performed by fire alarm dispatchers.

Michigan State Employee's Association v. EEOC, No. 84-CV-4058 DT (E.D. Mich. filed August 31, 1984).

In August 1981, the Michigan State Employee's Association filed charges with the EEOC and the Michigan Department of Civil Rights, alleging that the Michigan Civil Service Commission intentionally undervalued and undercompensated jobs which traditionally have been performed by women. Neither agency investigated the charges and, in August 1984, the union filed a lawsuit against both the EEOC and the Michigan Department of Civil Rights. The complaint requests the district court to order the federal and state agencies to investigate the union's allegations of sex bias in the state's compensation system. See 22 GOV'T EMPL. REL. REP. (BNA) 1732 (Sept. 10, 1984).

AFSCME v. State of Hawaii, No. 84-1314 (D. Hawaii filed Nov. 9, 1984).

In November 1984, a local unit of AFSCME filed a class action on behalf of state, county, and judiciary employees in the State of Hawaii. The complaint alleges that the State of Hawaii and various public officials discriminatorily segregated job classifications according to sex, and paid employees in historically-female jobs less than employees in historically-male jobs for work of substantially equal value.

California State Employees Association v. State of California, No. 84-7275 (N.D. Cal. filed Nov. 21, 1984).

In November 1984, the California State Employees Association filed a sex-based wage discrimination lawsuit against the State of California, on behalf of 37,000 state employees. The union claims that California has violated Title VII by maintaining sex-segregated job classifications and discriminatory wage scales for female-dominated jobs, and that the state has acknowledged sex-based wage disparities in several reports to the state legislature. Besides seeking a court order to correct the alleged discriminatory practices, the union is requesting back-pay and upward salary adjustments for the affected employees. See 22 GOV'T EMPL. REL. REP. (BNA) 2225 (Dec. 3, 1984).

III. Specific Considerations Affecting Pay-Equity Studies

A. Legal Implications of Conducting a Pay-Equity Study

Currently, there is no federal legislation or case law which affirmatively requires an employer to study its compensation practices from a pay-equity standpoint. An employer's decision whether to conduct a pay-equity study may be affected by the following legal considerations.

Several court cases suggest that an employer who conducts a pay-equity study may reduce the risk of Title VII liability for intentional sex discrimination. Thus, in Taylor v. Franklin Drapery Co., 441 F. Supp. 279 (W.D. Mo. 1977), an employer successfully defended a Title VII challenge to its wage structure by demonstrating that it had evaluated the worth of female and male-dominated jobs, and then structured wages according to differences in skill, effort, responsibility, and working conditions. In Taylor v. Charley Bros. Co., 25 FEP Cases 602 (W.D. Pa. 1981), discussed previously, the district court held a grocery wholesaler liable for intentional sex discrimination under Title VII partly because it had failed to evaluate the relative worth of sex-segregated jobs.

On the other hand, AFSCME v. State of Washington, 578 F. Supp. 846 (W.D. Wash. 1983), discussed previously, suggests that an employer who undertakes a pay-equity study must be prepared to remedy disclosed pay differentials immediately, or else face liability for intentional sex discrimination under Title VII. In AFSCME, Washington State commissioned a pay-equity study which revealed sex-based wage disparities, and then waited 9 years before passing legislation which purported to eliminate the disparities over a 10-year period. The district court held that Washington State's delay in implementing a pay-equity plan constituted evidence of intentional discrimination, and that the state's 10-year implementation scheme did not provide an adequate remedy under Title VII because "Title VII

remedies are now." 578 F. Supp. at 864, 868 (emphasis in original). The court rejected Washington State's arguments that immediate correction of sex-based wage disparities would burden the state economically and disrupt its work force.

Additionally, AFSCME v. State of Washington suggests that an employer who commissions a pay-equity study for informational purposes may be legally bound by the results, even if the employer lacks confidence in the study's methodology. In its AFSCME decision, the district court did not address Washington State's arguments, presented at trial, that the state was already using a bona fide compensation system and that its pay-equity study was exploratory and unreliable. The court simply stated that it was not required to independently assess the value of the jobs in question because the state, by commissioning a pay-equity study, had arrived at its own determination of "comparable worth." 578 F. Supp. at 862.

B. Judicial Consideration of Pay-Equity Studies

(1) Job Evaluation

Generally, Federal courts have been unwilling to identify strengths or deficiencies in specific job-evaluation methodologies. The Supreme Court, and a number of lower Federal courts, have expressed a reticence to become involved in assessing the relative worth of male and female-dominated jobs, or to attempt by statistical technique or other method to quantify the effect of sex discrimination on wage rates. See County of Washington v. Gunther, 452 U.S. 161, 181 (1981); AFSCME v. State of Washington, 578 F. Supp. 846, 862 (W.D. Wash. 1983); and Vuyanich v. Republic Nat'l Bank, 505 F. Supp. 224, 284 (N.D. Tex. 1980), vacated and remanded on other grounds, 723 F.2d 1195 (5th Cir. 1984), rehearing denied, 35 FEP Cases 345 (5th Cir. 1984). For example, in Vuyanich, the district court addressed statistical evidence which both the plaintiffs and defendant had derived from a Hay Associates job evaluation, without commenting on the merits of the Hay system. The court merely stated that the defendant, by commissioning the Hay study, had arrived at its own determination of job worth. 505 F. Supp. at 284, 285.

In one case, however, a district court was willing to address the conflicting claims of job evaluation experts retained by the defendant, a grocery wholesaler, and the plaintiffs, employees of an all-female grocery store department. Taylor v. Charley Bros. Co., 25 FEP Cases 602 (W.D. Pa. 1981), discussed previously. The plaintiffs' expert had employed a job evaluation plan developed by the American Association of Industrial Management. The plan evaluated jobs according to 11 factors, grouped into the categories of "skill," "effort," "responsibility," and "working conditions." Each factor was divided into five degrees according to a descriptive

definitional scheme. Then, depending upon the degree assigned for each of the 11 factors, each job was awarded a certain number of points. 25 FEP Cases at 612.

Although the district court in Taylor did not describe the defendant's job evaluation plan, it indicated that, for the following reasons, it preferred the plaintiffs' plan: (1) the plaintiffs' expert employed a job evaluation plan which had been more widely used and tested over a longer period of time than the defendant's; (2) the plaintiffs' plan contained more discrete categories of job analysis, which were more carefully defined, than the defendant's; and (3) the plaintiffs' expert had far more experience in the field of job evaluation than did the defendant's. 25 FEP Cases at 612.

(2) Statistical Studies

Even though judges are generally reluctant to become involved in job evaluation, several courts have commented on statistical models employed in wage-discrimination litigation. Some examples of these comments follow.

* Comparative statistics must take all relevant factors into account. Thus, in EEOC v. Hartford Fire Insurance Co., 31 FEP Cases 531, 545 (D. Conn. 1983), the district court discounted EEOC's statistical study which accounted for such factors as academic major, level of education, and tenure with the company, but ignored differences in job content. In Spaulding v. Univ. of Washington, cited above, 740 F.2d at 704, the Ninth Circuit discredited the nursing faculty's comparative statistics partly because they failed to account for prior job experience and did not include a detailed analysis of day-to-day responsibilities.

* Proxy variables must be accurate. In Vuyanich v. Republic Nat'l Bank, cited above, 505 F. Supp. at 314-317, the district court found that the plaintiffs' statistics did not establish a presumption of sex discrimination in wages because they used age as a proxy for prior work experience. The court observed that the use of age as a proxy tends to inflate the actual work experience of women.

* A statistical study must account for the fact that a number of variables operate simultaneously to influence salaries. Thus, in a suit filed by a female faculty members of the University of Houston, the Fifth Circuit rejected statistical evidence which examined the isolated effect of various factors--such as age, rank, and length of experience--on faculty salaries. Wilkins v. Univ. of Houston, 654 F.2d 388, 402 (5th Cir. 1981), rehearing denied, 662 F.2d 1156 (5th Cir. 1981), vacated on other grounds, 459 U.S. 809 (1982).

* A number of courts have recognized that multiple regression analysis is a useful tool for measuring the average salary differential between men and women, while controlling for productivity-related characteristics which may lead to differences in compensation. Spaulding v. Univ. of Washington, cited above, 740 F.2d at 704, Melani v. Board of Higher Education, 561 F. Supp. 769, 774 (S.D.N.Y. 1983). In Melani, the district court noted that the technique of regression analysis also provides a measure of the probability that observed salary differentials result from chance or random factors. 561 F. Supp. at 774.

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PAY SETTING IN THE GS AND FWS SYSTEMS

Both white and blue collar federal pay are presently governed by the principle of comparability with the private sector. The Federal Salary Reform Act of 1962 established the principle that federal salary rates for white collar employees under the GS system should be comparable with private enterprise rates for the same levels of work. This principle has been retained in subsequent legislation dealing with pay comparability.

The Federal Pay Comparability Act of 1970 established three principal groups to carry out the comparability process--the President's pay agent, The Federal Employee's Pay Council, and the Advisory Committee on Federal Pay. The Directors of OPM and OMB and the Secretary of Labor jointly serve as the President's pay agent for setting and adjusting pay for federal white-collar employees. The Bureau of Labor Statistics conducts a survey of professional, administrative, technical, and clerical salaries in the private sector, which it forwards to the pay agent for consideration. The pay agent, in consultation with the Federal Employees Pay Council, determines the criteria for comparability and develops the annual rate proposals. The pay agent submits pay under the General Schedule with the rates of pay for the same levels of work in the private sector as determined by the survey.

The Federal Pay Comparability Act of 1970 also established an Advisory Committee on Federal Pay, composed of three members who are not employees of the federal government. The Advisory Committee's purpose is to provide the President with independent third-party advice on the pay proposals, considering the recommendations of the President's pay agent and the Federal Employees Pay Council.

After considering the report of the pay agent encompassing the findings and recommendations of the Pay Council, and the Advisory Committee report, the President must either agree to the comparability pay adjustment recommendation to take effect in October or submit an alternative plan to the Congress which would go into effect unless a majority vote of either House disapproves it. If the alternative plan is disapproved, the President is required to make a comparability adjustment based on the reports of the pay agent and the Advisory Committee according to the statute's principle of comparability. For the past 7 years, the President has not agreed to the pay adjustment recommendation of the pay agent and has submitted an alternative proposal. These proposals have never been overridden by the Congress.

The Congress established the Federal Wage System (blue-collar) in 1972 (5 U.S.C. 5341 et. seq.) and enacted principles, policies, and processes into law which previously had been handled administratively. The law establishes the policy that pay rates for blue-collar employees be fixed and adjusted from time to time to be consistent with local prevailing rates. The law provides that pay rates be based on the following:

--There will be equal pay for substantially equal work for employees working under similar conditions within the same local wage area.

--There will be relative differences in pay within a local wage area when there are substantial or recognizable differences in duties, responsibilities, and qualification requirements among positions.

--The pay levels will be maintained in line with prevailing levels for comparable work within a local wage area.

--The pay levels will be maintained to attract and retain qualified employees.

Under the Federal Wage System, wage rates for blue-collar employees are established in 137 geographic areas in the continental United States, Alaska, Hawaii, Guam, and Puerto Rico. Within each area, OPM has designated areas in which annual surveys are made of wage rates paid by private sector establishments for selected jobs common to both industry and Government.

APPENDIX V

LIST OF ORGANIZATIONS/INDIVIDUALS CONTACTED AND PARTICIPANTS ON PANELS

FEDERAL GOVERNMENT

Equal Employment Opportunity Commission
Office of Personnel Management
Department of Labor
Department of Justice
Civil Rights Commission

STATE AND LOCAL ORGANIZATIONS

Council of State Governments
National Governor's Association
National Conference of State Legislatures
National League of Cities

EMPLOYEE ORGANIZATIONS

The National Treasury Employees Union
The National Association of Government Employees
The American Federation of Government Employees
The National Federation of Federal Employees
American Federation of State, County and Municipal Employees

PROFESSIONAL ASSOCIATIONS

International Personnel Management Association
American Compensation Association
Classification and Compensation Society
Association of Technical and Supervisory Professionals
Professional Managers Association
Federal Bar Association
Federal Executives and Professionals Association
Professional Engineers in Government
American Foreign Service Association
National Association of Federal Veterinarians
Patent Office Professional Association
Federally Employed Women
Senior Executives Association
Social Security Managements Association

BUSINESS ORGANIZATIONS

Equal Employment Advisory Council
U.S. Chamber of Commerce

JOB EVALUATION EXPERTS

Hay Associates
Norman D. Willis and Associates, Inc.
Booz. Allen and Hamilton, Inc.
Arthur Young and Company
The Wyatt Company
Halcrest-Craver Associates, Inc.
Hubbard, Givens & Revo-Cohen

WOMEN'S ORGANIZATIONS

National Committee on Pay Equity
National Commission on Working Women
National Organization for Women
National Women's Political Caucus

EXPERTS PARTICIPATING ON STATE PAY EQUITY ACTIVITIES PANEL HELD DECEMBER 17, 1984

Dr. Keon S. Chi is a Policy Analyst for the Council of State Governments in Lexington, Kentucky. Dr. Chi has written several articles for council publications on comparable worth activities in the states and has recently been involved in a council-sponsored survey of state personnel activities which included comparable worth.

Dr. Alice H. Cook is Professor Emerita from Cornell University's School of Industrial and Labor Relations. She has written Comparable Worth: The Problem and States' Approaches to Wage Equity. Dr. Cook is currently engaged in summarizing the results of 125 case studies (including 44 states) on comparable worth for publication. She has also written widely on union issues.

Dr. Elaine Johansen is Assistant Professor of political science at the University of Connecticut. Professor Johansen has written extensively about comparable worth, including a new book, Comparable Worth: The Myth and the Movement (1984). She is currently preparing a study of pay equity initiatives in state government.

Ms. Nancy Reder is Chair of the National Committee on Pay Equity. The committee has over 175 organizational and individual members and is the only national coalition working exclusively to achieve equal pay for work of comparable value. The committee, with the National Women's Political Caucus and the Comparable Worth Project, recently completed a survey of state and local pay equity initiatives (Who's Working for Working Women, 1984).

Dr. Helen Remick is Equal Employment Officer at the University of Washington; Seattle, Washington. She has edited a recent Temple University book, Comparable Worth and Wage Discrimination: Technical Possibilities and Political Realities, and has written on the Washington State experience in comparable worth. In addition, Ms. Remick has served as a consultant to several comparable worth studies and has provided expert testimony to legislators in the Pacific Northwest area.

Dr. Nina Rothchild is Commissioner for the Minnesota Department of Employee Relations. In her capacity as Commissioner, she is responsible for implementing pay equity legislation in the state of Minnesota.

Dr. Ronnie Steinberg is Senior Research Associate of the Center for Women in Government at the State University of New York at Albany. She was Research Director for the International Conference on Equal Pay and Equal Opportunity Policy: Western Europe, Canada, and the United States. Dr. Steinberg authored a report for the Organization of Economic Cooperation and Development on "Labor Market Inequality and Equal Opportunity Policy: A Cross-National Comparison", and has published a book, The Growth of Wage and Hour Standards Laws in the United States, 1900-1973 (1980).

EXPERTS WHO PARTICIPATED ON FEDERAL PAY EQUITY OPTIONS PANEL HELD FEBRUARY 9, 1985, AND WHO REVIEWED A DRAFT OF THIS REPORT

Dr. Donald Treiman, Professor of Sociology at UCLA: Dr. Treiman worked on the National Academy of Science (NAS) committee which studied sex-based wage discrimination. He authored Job Evaluation: An Analytic Review and co-authored Women, Work, and Wages. Job Evaluation includes segments on the GS and FWS classification systems. He is also a member of the technical panel for the New York state comparable worth study.

Dr. Mark Killingsworth, Associate Professor of Economics, Rutgers: Dr. Killingsworth testified before the Joint Economic Committee on comparable worth. He has used the CPDF to model employment issues (e.g. promotions, rank, and pay) among a group of federal civilian employees.

Dr. George Borjas, Professor of Economics, University of California at Santa Barbara: Dr. Borjas has used the CPDF to examine wage differentials in the federal sector. A 1983 paper he authored reports interagency variations in employment policies within the federal government.

Dr. Heidi Hartmann, economist at the National Academy of Sciences: Dr. Hartmann worked on the NAS committee which studied sex-based wage discrimination and co-authored Women, Work, and Wages. She is currently editing a volume on comparable worth.

Dr. Donald Schwab, Professor of Business Research and Industrial Relations, University of Wisconsin: Has written extensively on the issue of comparable worth. For example, he wrote chapters in the 1980 Equal Employment Advisory Council book and in the 1984 U.S. Civil Rights Commission compendium.

Mr. Philip Oliver, was the Director of the Job Evaluation and Pay Review Task Force (1970-1972) that laid the foundation for the federal Factor Evaluation System (FES). He was also the Director of Management Systems, Office of the Comptroller, U.S. Department of Labor.

In addition, Dr. Ronnie Steinberg, noted above as a participant on the state's panel, reviewed a draft of this report.

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